Building
New Solutions

Business Division
Floors

Lindner

Walk as you wish

Floors

Rethinking Spaces

The Lindner Group's product and service portfolio is unique for interior fit-out, building technology, insulation and building envelopes. We are a technically strong, pragmatic and reliable partner with a solid economic basis for virtually all types of buildings.

In line with the motto "Rethinking Spaces", we develop customised yet flexible solutions and comprehensive concepts for building projects of all kinds with products from our own production – "Made by Lindner".

Add.Vantage in Quality and Sustainability

With our products, we know exactly "what's inside", where the raw materials and materials come from, what they contain, how and who processes them. This is how we ensure the high Lindner quality standard at first hand, tested and confirmed by detailed environmental product declarations and product certifications in accordance with the Cradle to Cradle Certified® Product Standard.

Add.Vantage in Design and Function

Thanks to our high level of vertical integration, we are able to customise products to your requirements, exactly as you wish – including suitable acoustic, fire protection and safety concepts as well as the highest sustainability criteria.

In addition to our craftsmanship, we draw on the knowledge and experience of more than 200 specialists in our Research & Development Department and our in-house test workshop.

Strong Products – Strong Team

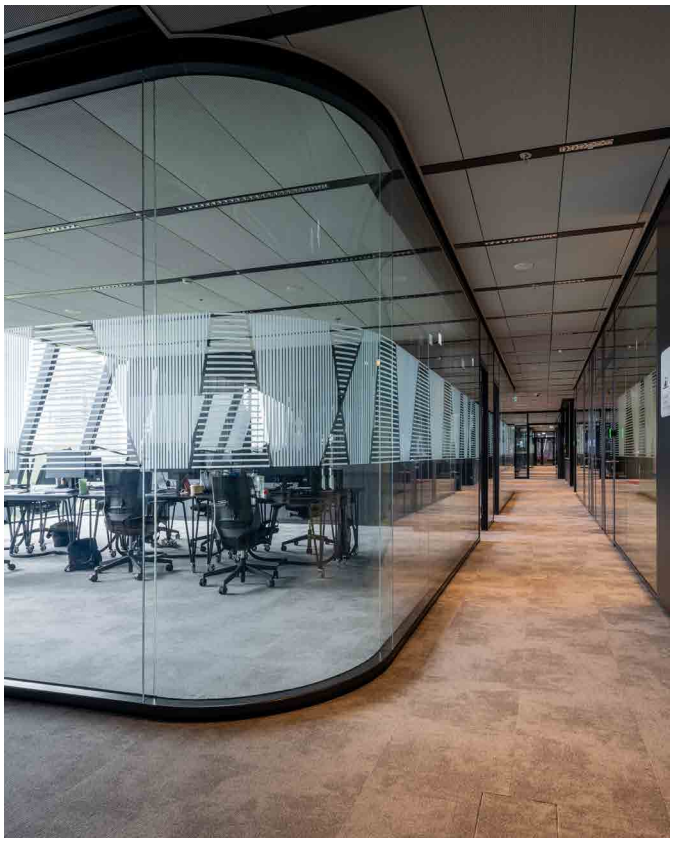
Another Add.Vantage: all Lindner interior fit-out elements are perfectly harmonised with each other. This not only simplifies assembly, but also use, maintenance and remodelling. In line with the Cradle to Cradle® Principle, our aim is to reuse and recycle products and materials for as long as possible while maintaining the same level of quality. Who better to install or remodel Lindner products than ourselves? That's why we rely on our own team power with over 2,000 of our own fitters.

More than just a Construction Company

Since our foundation in 1965, we have grown into an internationally successful construction company with a good 3,000 ongoing projects every day. Our headquarters are and will remain in Arnstorf in Lower Bavaria, where the majority of our production facilities are located.

Our mission "Building New Solutions" means developing innovative ideas for our construction projects, but also for the construction industry as a whole. In doing so, we take responsibility for a future worth living and drive forward the future topics of digitalisation and sustainability with new solutions.

However, our group of companies not only includes construction and property, but also catering, sustainable forestry and agriculture as well as social foundations. People are at the centre of everything we do. As a family business, we attach great importance to tradition and sustainability, but also to innovation and healthy growth.



MOL Campus, Budapest, Hungary
© György Palkó

Complete Solutions from a Single Source

Ideas for More Space

Floor systems have a long tradition at Lindner. As the international market leader, we offer an extensive range. Our gypsum fibreboards are made from almost 100% recycled materials and are the first calcium sulphate panels in the world to be FSC™ and Cradle to Cradle® certified.

As NORTEC raised floor panels or as FLOOR and more® in the hollow floor sector they have a wide range of applications.

To match this, Lindner also offers high-quality surface coverings in a wide range of variants: In addition to standard coverings such as rubber, PVC, HPL or carpet, STONEline top coverings made of stone, LEATHERline top coverings made of leather fibre and the real wood parquet series WOODline from our own production are also available.

Many Years of Product Experience

In 1970, we began producing our own ceiling and wall systems in our first joinery in Arnstorf. In 1986, the portfolio was then expanded to include the production of raised floor. To this day, Arnstorf is the Lindner Group's largest production site, almost all products from the Lindner range are manufactured here. In addition, numerous production-related competence centres such as purchasing, logistics, quality assurance, research and development with a test workshop and, last but not least, the craft training centre for all industrial professions are located at the headquarters. At our location in Dettelbach, more than 200 employees haven been producing gypsum fibre panels since 1993. The production sites for system floors of Lindner NORIT GmbH & Co. KG in Dettelbach and Lindner SE in Arnstorf as well as parquet production in Hlinik Nad Hronom are FSC™ certified. In addition, the pedestal production is located at our headquarters in Arnstorf, where high quality pedestals for our various floor systems are produced.

System Floor Production Sites

Arnstorf – Germany
Production of ceiling, floor and wall systems, lights, facades and clean rooms; production of high-quality carpentry work for interior fittings and ship outfitting

- 64,250 m² production area
- 200,000 m² company premises

Dettelbach – Germany
Production of gypsum and cement fibre panels and drywall products

- 25,000 m² production area
- 90,000 m² company premises

Hliník nad Hronom – Slovakia
Production of parquet top layers

- 1,200 m² production area
- 8,900 m² company premises

At Home in Arnstorf and throughout the World

We realise countless projects for our customers all over the world, take on challenges and grow with them. A global network of reliable partners and established subsidiaries supports us in our work. The following pages will give you an overview of our comprehensive flooring solutions.

Contact us at our headquarters in Arnstorf or visit www.Lindner-Group.com for your local contact.

Lindner Group | Floors
Bahnhofstrasse 29
94424 Arnstorf | Germany
floors@Lindner-Group.com

Lindner Flooring Systems – References Worldwide

- Alphadom 6-2block, South Korea
- Alrio – Alcantara Riverside Rockbuilding (Alcantara Lisbon Offices), Portugal
- Amdocs, Israel
- Arter Quarter, Estonia
- Austria Campus, Austria
- AXS Namur, Belgium
- Bank of Korea, South Korea
- BC Deniz Park, Kazakhstan
- BNP, Belgium
- Bosch Gerlingen Sh101, Germany
- Capital Fort, Bulgaria
- Central Bank of Iraq, Iraq
- Core Business Centre, Lithuania
- DGP Media, Netherlands
- EDGE Amsterdam West, Netherlands
- Edge Stadium, Netherlands
- ENI Headquarters, Italy
- Europa, France
- Eurovea 2, Slovakia
- Exeo Offices Campus, Portugal
- Fabryczna BP, Poland
- GACA Headquarters, Saudi Arabia
- Generation Office, Poland
- Global Office Park, Poland
- Global Tower, Germany
- HQ Central Bank of Turkey, Turkey
- Kuwait International Airport TB2, Kuwait
- Kynaststraße, Germany
- L'archipel VINCI, France
- Tour Link/BATEG, France
- Métal 57 BNP, France
- Microsoft Herzliya, Israel
- MOL Campus, Hungary
- New Apollo, Slovakia
- NV Tower, Bulgaria
- Office Building Sparta, Lithuania
- Office X, Bulgaria
- Ospedale Monopoli-Fasano, Italy
- Parliament building Vienna, Austria
- PIF HQ Tower (KAFD), Saudi Arabia
- Helix post office building, Luxembourg
- Quatuor, Belgium
- SABIC New HQ Jubail, Saudi Arabia
- School campus, Germany
- Spark One, Italy
- Sky Fort 1+2, Bulgaria
- Skyliner II, Poland
- Skysawa, Poland
- Tadwul Tower (KAFD), Saudi Arabia
- Terminal 3 Frankfurt Airport, Germany
- The Wings, Belgium
- Tour Aurore/PETIT, France
- Tour Duo, France
- Tripoli Park, Netherlands
- Verde 1+2, Latvia
- Warsaw Forest, Poland
- WeLand, Finland
- ZIN WTC, Belgium
- Ziraat Bank Tower, Turkey
- Ziraat Bank Tower 2, Turkey

Contents

Raised Floor

Always up to Date

Do you want to install building, IT and communication technology intelligently? Raised floors offer you the ideal conditions for this: the modular panels are laid using the dry construction method and allow direct access to the cavity underneath at any point – ensuring effortless maintenance of all installations. The raised floor panels not only offer you extra flexibility, but can also be recycled after the first phase of use.

- convenient maintenance of data lines and building technology
- flexible adaptation to changing requirements
- state-of-the-art interior fit-out solution for office areas
- tested according to EN 12825 for raised floors
- recyclable product
- Cradle to Cradle Certified®

Raised Floor

	Technical Data		Acoustics	Fire Protection		Statics
	Panel Thickness	**System Weight**	**Building and Room Acoustics** *acc. to ISO 10848 **acc. to ISO 10140 ***acc. to ISO 354	**Building Material Class** acc. to DIN 4102-1 und acc. to EN 13501-1	**Fire Resistance Class** *acc. to DIN 4102-2 **acc. to EN 13501-2	**Load and Deflection Class** acc. to EN 12825
Calcium Sulphate Panels						
NORTEC Raised floor	30 - 44.5 mm	45 - 80 kg/m²	$D_{n,f,w}$: 48 - 64 dB* R_w: 61 dB** ΔL_w: 15 - 36 dB** $L_{n,f,w}$: 73 - 38 dB*	non-combustible	F 30 and F 60*, REI 30 and REI 60**	1A - 5A (2 kN - 5 kN)
NORTEC power Raised floor for heavy-duty areas	38.5 - 44.5 mm	65 - 82 kg/m²	$D_{n,f,w}$: 49 dB* R_w: 61 dB** ΔL_w: 14 dB** $L_{n,f,w}$: 70 dB*	non-combustible	REI 30**	6A (6 - 15 kN)
NORTEC acoustic Raised floor for acoustic performance	38 mm	70 - 75 kg/m²	α_w: 0.35 - 0.55*** Klasse: D	non-combustible	–	2A (3 kN)
NORTEC aurum Raised floor with highest demands to sustainability	30 - 38.5 mm	34 - 70 kg/m²	$D_{n,f,w}$: 47 - 64 dB* R_w: 61 dB** ΔL_w: 17 - 36 dB** $L_{n,f,w}$: 73 - 38 dB*	non-combustible	F 30* and REI 30**	1A - 5A (2 kN - 5 kN)
NORTEC CLT Raised floor on cross laminated timber ceiling	38 mm	approx. 210 kg/m²	$D_{n,f,w}$: 56 - 61 dB* R_w: 63 dB** $L_{n,w}$: 44 - 42 dB** $L_{n,f,w}$: 64 - 39 dB*	non-combustible	F 30 and F 60*, REI 30 and REI 60**	2A (3 kN)
NORTEC sonic Raised floor for displacement ventilation	38 mm	57 kg/m²	–	non-combustible	–	1A - 3A (2 kN - 4 kN)
Refurbished Calcium Sulphate Panels						
LOOP aurum Refurbished raised floor with highest demands to sustainability	30 - 37 mm	52 - 56 kg/m²	–	non-combustible	F 30 REI 30	1A - 2 A (2 kN - 3 kN)
LOOP prime Five-sided refurbished raised floor	32 - 37 mm	52 - 60 kg/m²	–	non-combustible	–	1A - 2 A (2 kN - 3 kN)

	Climatig Regulation		Sustainability					Service		
	Heating and Cooling acc. to EN 1264	**Ventilation** acc. to DIN EN 1026	**Carbon-neutral**	**Cradle to Cradle Certified®**	**verified EPD** acc. to ISO 14025 / EN 15804	**FSC™-certified**	**IBR-Test Seal**	**Rental Option**	**Take-Back Offer**	**Purchase with Return Agreement**
	–	–	optional	silver	✓	✓	✓	✓	✓	✓
	–	–	optional	silver	✓	✓	✓	✓	✓	✓
	–	–	–	–	–	–	✓	✓	✓	✓
	–	–	optional	gold	✓	✓	✓	✓	✓	✓
	–	–	–	silver	✓	✓	–	✓	✓	✓
	–	free cross-section: 4 - 24 %, Air flow rate: 192 - 1,294 m³/h	–	–	–	–	✓	–	✓	✓
	–	–	–	gold	✓	–	–	✓	–	✓
	–	–	–	silver	✓	–	–	✓	–	✓

Raised Floor

	Technical Data		Acoustics	Fire Protection		Statics
	Panel Thickness	**System Weight**	**Building and Room Acoustics** *acc. to ISO 10848 **acc. to ISO 10140 ***acc. to ISO 354	**Building Material Class** acc. to DIN 4102-1 und acc. to EN 13501-1	**Fire Resistance Class** *acc. to DIN 4102-2 **acc. to EN 13501-2	**Load and Deflection Class** acc. to EN 12825
Chipboard Panels						
LIGNA Raised floor for greater efficiency	30.5 - 38.5 mm	26 - 33 kg/m²	$D_{n,f,w}$: 45 - 59 dB* R_w: 62 dB** ΔL_w: 16 - 33 dB** $L_{n,f,w}$: 69 - 30 dB*	difficult to ignite	F 30* REI 30**	1A - 5B (2 kN - 5 kN)
LIGNA power Raised floor for heavy-duty areas	30.5 - 38.5 mm	38 - 42 kg/m²	–	normal flammability/ low fammability	F 30*	6A (6 kN - 7 kN)
Refurbished Chipboard Panels						
RELIFE Refurbished Raised Floor	32 - 37 mm	52 - 60 kg/m²	–	non-combustible	–	1A - 2 A (2 kN - 3 kN)
Aluminium Panels						
PRODATA Aluminium raised floor for the highest requirements	52 - 60 mm	27 - 42 kg/m²	–	non-combustible	–	6B (7 kN - 10 kN)
ALUVENT Aluminium raised floor with perforation	52 - 60 mm	27 - 42 kg/m²	–	non-combustible	–	5B - 6B (5 kN - 10 kN)
OCTOGRATE Aluminium raised floor with ventilation function	62 mm	31 kg/m²	–	non-combustible	–	6B (7 kN)
Steel Ventilation Panels						
VENTEC Raised floor made of steel	38 - 44 mm	40 - 55 kg/m²	–	non-combustible	–	2A - 5A (3 kN - 5 kN)
Glass Raised Floor Panels						
LUMEN Raised Glass Floor	38 mm	89 kg/m²	–	non-combustible	–	5A (5 kN)

	Climatig Regulation		Sustainability					Service		
	Heating and Cooling acc. to EN 1264	**Ventilation** acc. to DIN EN 1026	**Carbon-neutral**	**Cradle to Cradle Certified®**	**verified EPD** acc. to ISO 14025 / EN 15804	**FSC™-certified**	**IBR-Test Seal**	**Rental Option**	**Take-Back Offer**	**Purchase with Return Agreement**
	–	–	Carbon sink	–	✓	✓	–	–	✓	✓
	–	–	Carbon sink	–	✓	✓	–	–	✓	✓
	–	–	–	silver	✓	–	–	✓	–	
	–	–	–	–	–	–	–	–	✓	✓
	–	free cross-section: 8.4 - 44.2 %	–	–	–	–	–	–	✓	✓
	–	free cross-section: > 53 %	–	–	–	–	–	–	✓	✓
	–	free cross-section round hole: 15 % / 24 % / 38 % free cross-section slotted hole: 16 % / 23 % Air flow rate: 375 - 2,500 m³/h	–	–	–	–	–	–	✓	✓
	–	–	–	–	–	–	–	–	–	–

Raised Floor from Calcium Sulphate

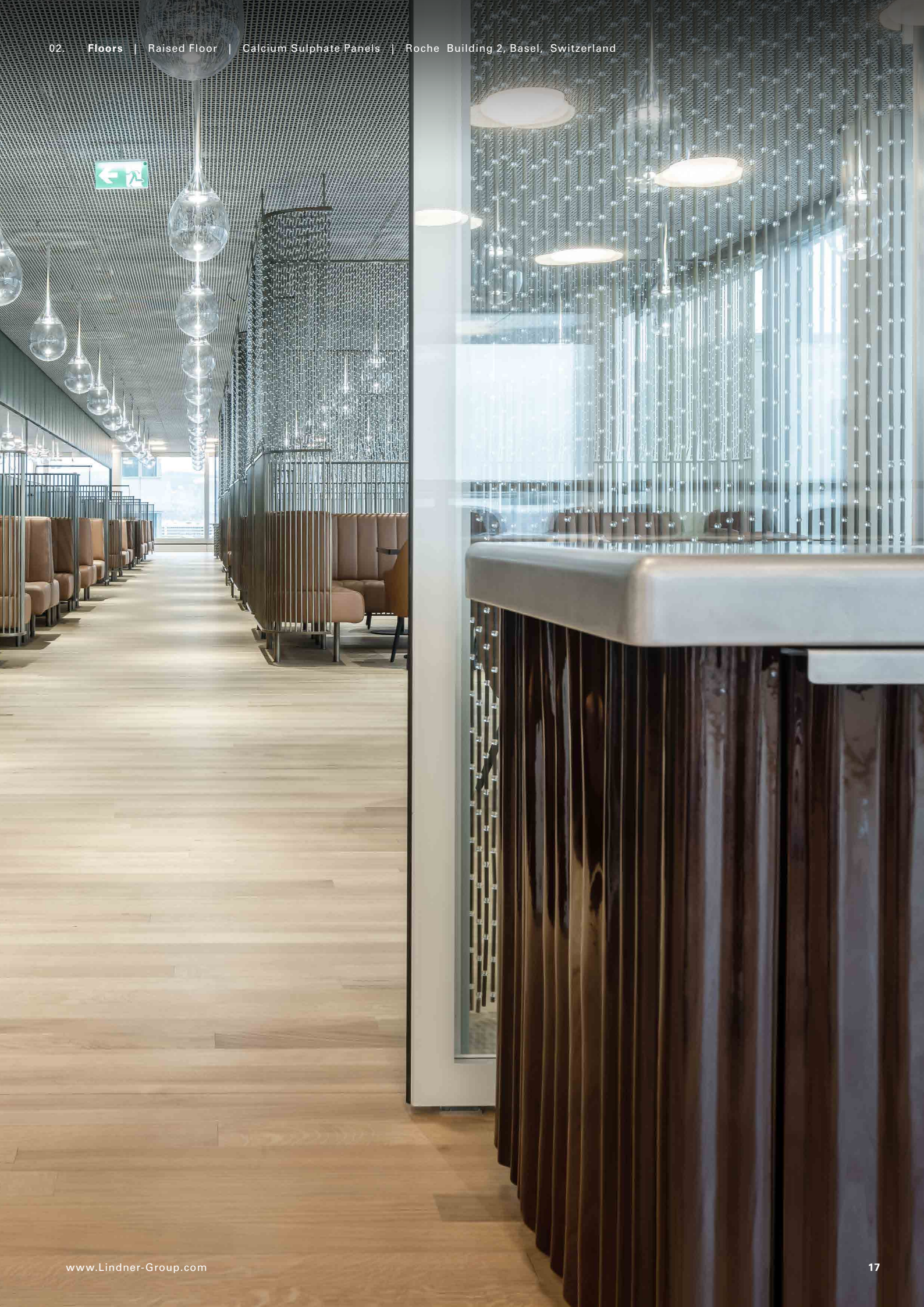
Enjoy Ongoing Comfort

Thanks to years of experience and continuous development, our calcium sulphate floor panels set standards in a wide range of applications: The walking comfort with excellent sound insulation and the many possible combinations with other flooring systems make the panels a widely applicable product.

When manufacturing the floor tiles in our own production facilities, we pay particular attention to the high quality of the raw materials: free of harmful emissions, our calcium sulphate panels are certified by the Institute for Building Biology in Rosenheim as harmless to building technology. Almost all of our gypsum system panels are certified by the FSC™-certified, thanks to the use of pre-consumer waste paper. Due to their durability, our gypsum fibre panels are also suitable for refurbishment.

Thanks to the numerous advantages of our floor panels, there are no limits to your imagination when it comes to the area of use and the choice of surface coverings.

- first-class walking comfort
- non-combustible
- biologically harmless
- resource-saving through the use of FGD and recycled gypsum
- replacement guarantee
- PVC-free



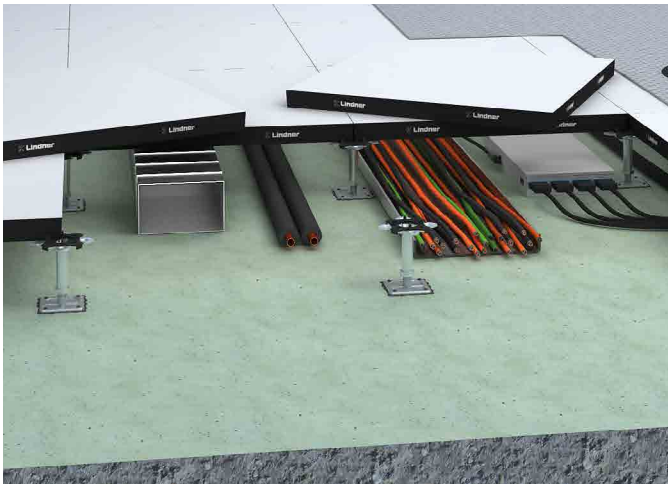
NORTEC

Raised Floor

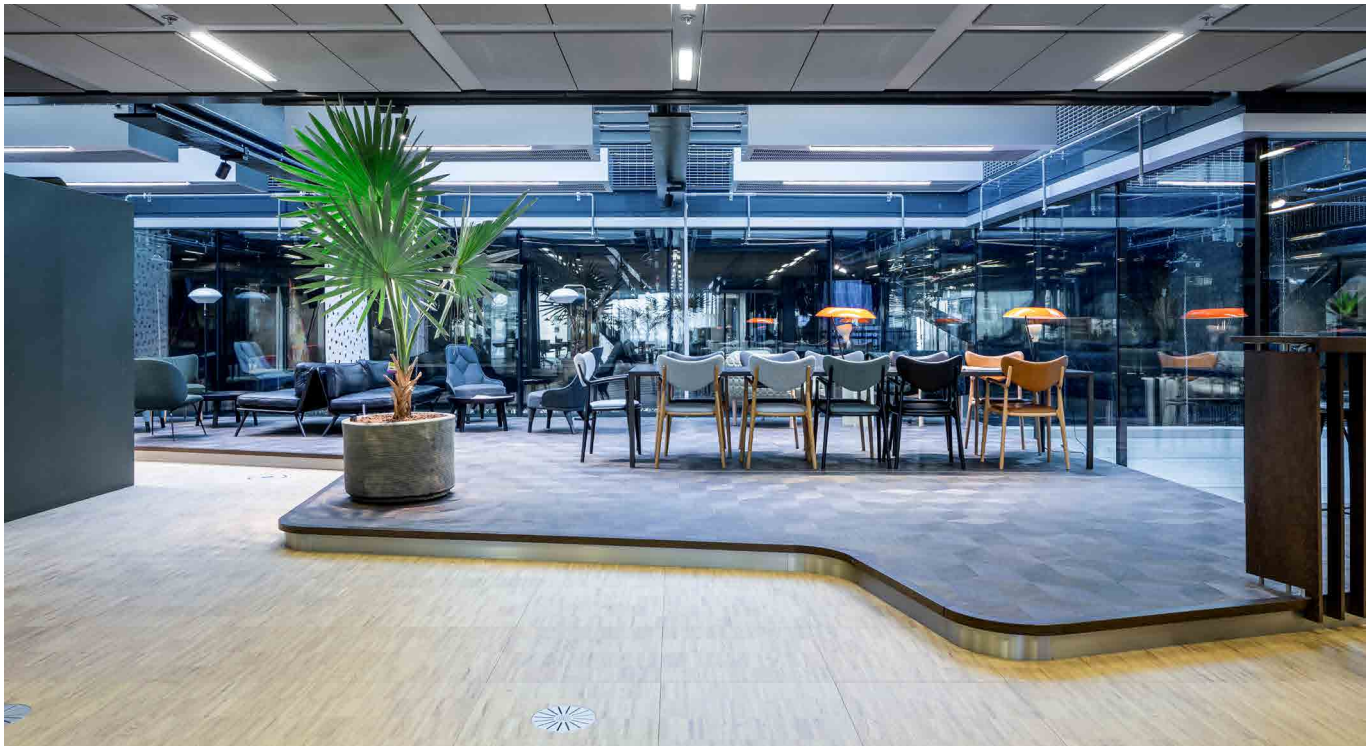
With its outstanding technical and physical properties, the NORTEC Raised Floor System is the ideal product for almost all applications. The raised floor panels are optionally applied with a steel sheet on the lower side.

The panels are provided with an edge trim on all edges against impact and humidity.

- up to 100 % recycled content “in the panel material”
- FSC™-certified
- non-combustible
- Cradle to Cradle Certified® Silver
- take-back offer
- very good building acoustic properties



Further information on the floor system can be found here:



BLOX, Copenhagen, Denmark

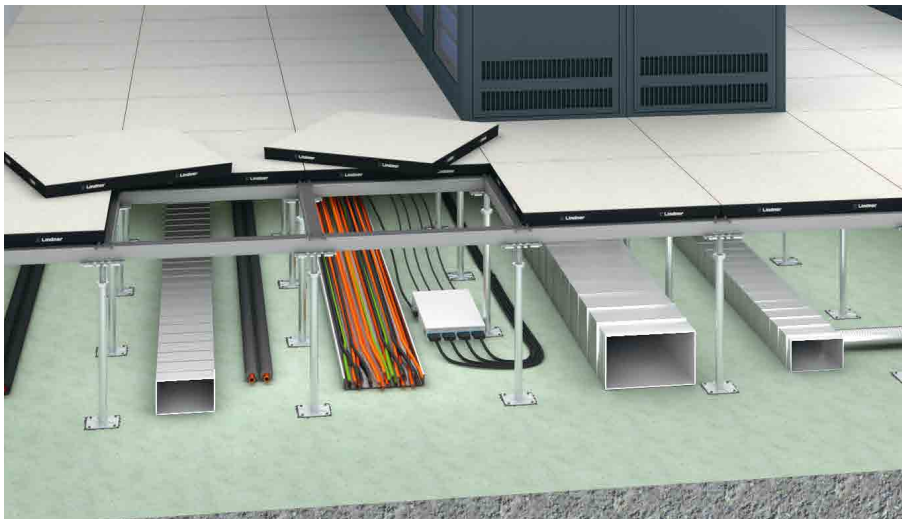
NORTEC power

Raised Floor for Heavy-Duty Areas

The NORTEC power Raised Floor System was developed especially for heavy-duty areas. The raised floor panels type power consist of calcium sulphate with optimised panel mixture and are applied with a steel sheet on the lower side.

The panels are provided with an edge trim on all edges against impact and humidity.

- very high load capacity
- heavy devices can be used directly on the floor
- non-combustible
- take-back offer
- ideal for data centres



Further information on the floor system can be found here:

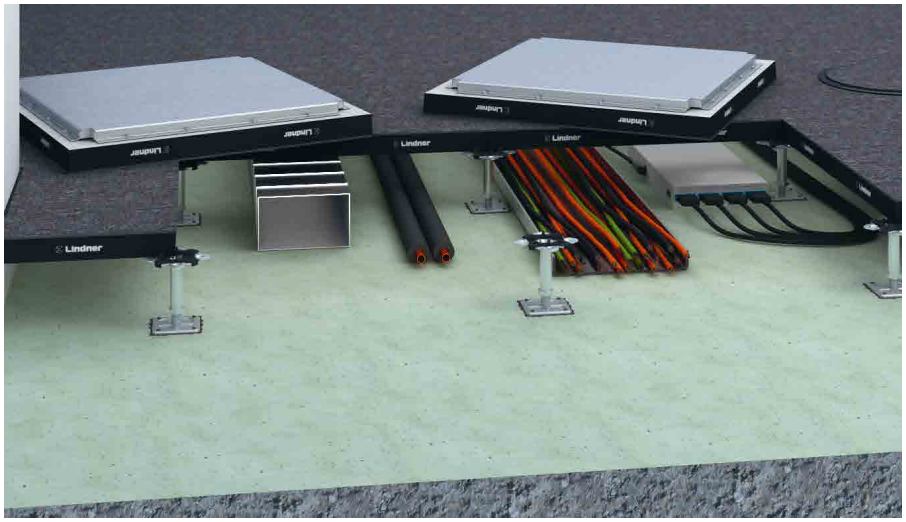
Frankfurt Airport Building 600, Frankfurt, Germany

NORTEC acoustic

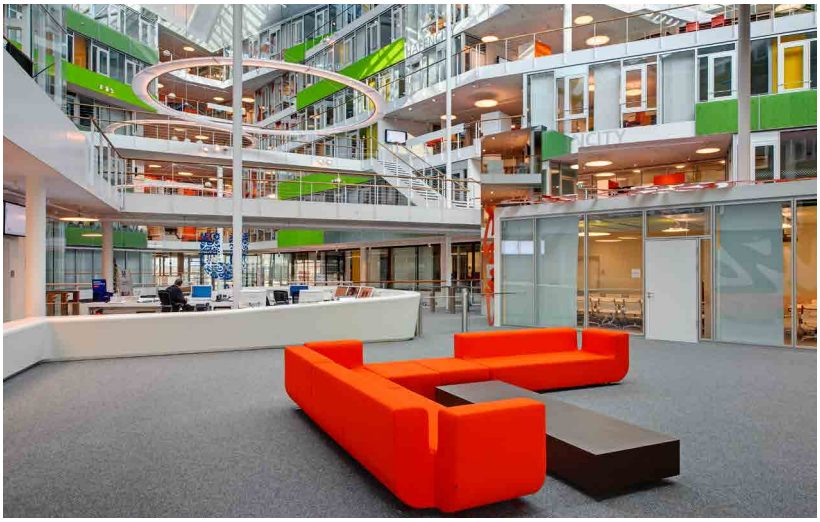
Raised Floor for Acoustic Performance

The perforated raised floor panels type acoustic consists of a calcium sulphate panel core, a qualified floor covering and optional acoustic fleece or acoustic element on the lower side of the panel to regulate the room acoustics or optimise the degree of sound absorption. The panels are applied with HF on the lower side.

- improves the room acoustics
- free room design for walls and ceilings thanks to hidden sound absorption level in the floor
- wide range of options thanks to a large selection of tested floor covering combinations
- different spectra of effectiveness due to customised systems



Further information on the floor system can be found here:



Unilever, Hamburg, Germany

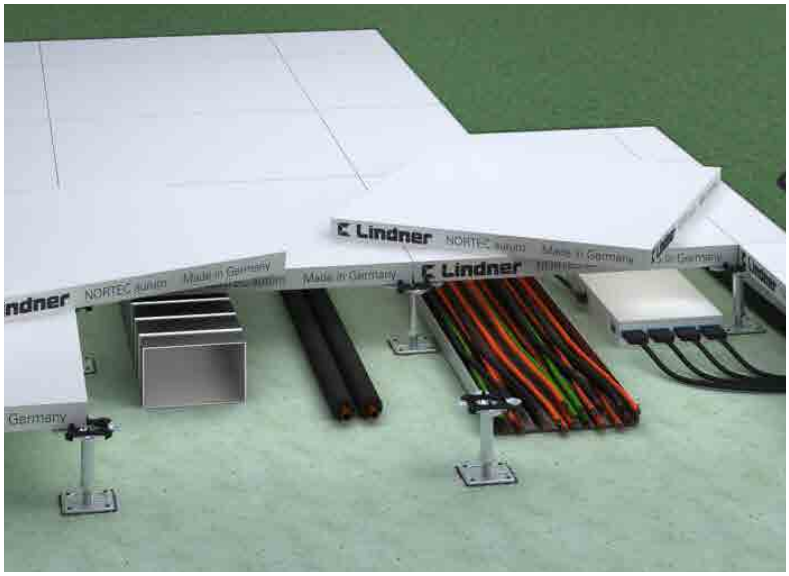
NORTEC aurum

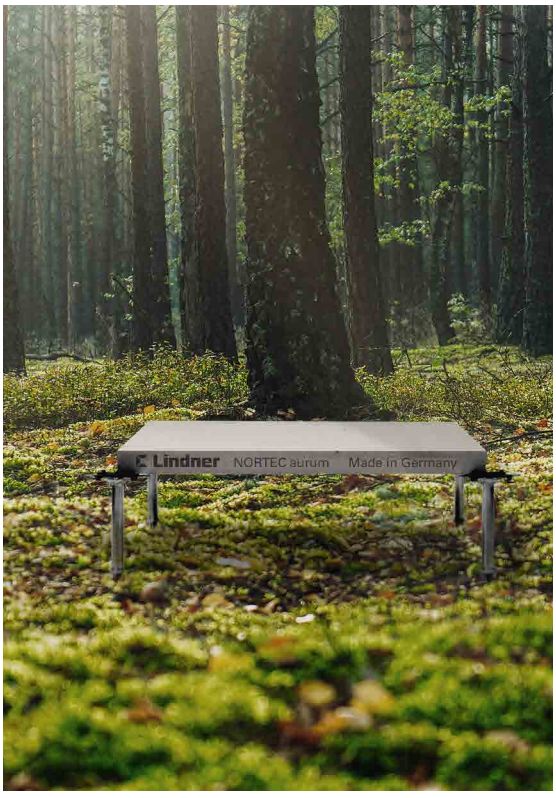
Raised Floor with Highest Demands to Sustainability

By producing the raw panels ourselves, we have a direct influence on the selection of raw materials. Thanks to its impressive ecological and technical properties, this system was the first raised floor in the world to be certified with Cradle to Cradle® Gold. On request, the flooring system can even be produced carbon-neutral.

- Cradle to Cradle Certified® Gold
- panel without plastic components
- environmentally conscious due to the resource-saving use of materials
- take-back offer

Further information on the floor system can be found here:





NORTEC CLT

Raised Floor on Cross Laminated Timber Ceiling

The NORTEC CLT Raised Floor system is the ideal product for use on solid wood ceilings in multi-storey timber construction.

The FLOOR and more® dry hollow floor panels laid on a dry mineral fill and decoupling layer provide the necessary weighting for the solid wood floor.

National sound insulation requirements can be taken into account by customising the design of the weighting level.

- acoustic optimisation of solid wood ceilings
- fire protection upgrading of the wooden ceiling possible
- comprehensive test certificates available
- entire system can be dismantled according to type
- future-proof thanks to maximum flexibility
- take-back offer

Further information on the floor system can be found here:

OPES Works, Oberhaching, Germany
© Dietrich | Untertrifaller Architekten

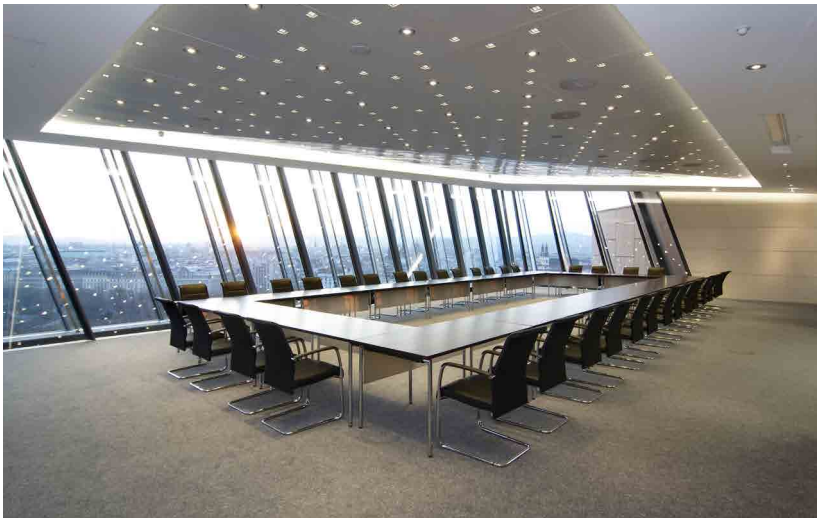
NORTEC sonic

Raised Floor for Seepage Ventilation

The floor system supplies your rooms directly with fresh air via perforations in the raised floor panel. Perforated NORTEC panels ensure ideal air circulation. When using coverings suited for seepage ventilation, virtually invisible room ventilation can be realised. With this innovative floor system, you create a particularly pleasant room climate and annoying draughts are now a thing of the past.

- very high air flow rate
- invisible seepage ventilation
- visible or invisible perforation possible

Further information on the floor system can be found here:



RZB Sky Conference Center, Vienna, Austria
© Toni Rappersberger

Raised Floor from Recycled Calcium Sulphate Panels

Turning Old into Better

With our refurbished raised floor panels, we are making an important contribution to change in the construction industry: our circular raised floor systems are managed in a closed material cycle – thanks to reuse and recycling. They consist of used floor panels with a core of fibre-reinforced calcium sulphate and can be fitted with all-round edge protection.

The refurbished calcium sulphate panels are in no way inferior to the new ones – on the contrary: the calcium sulphate panels of the refurbished raised floor have the same physical properties and impress with an improved carbon balance of up to 75 %. Due to the outstanding technical and physical properties of the floor system, it is suitable for almost all applications!

- resource-saving
- 75 % improved carbon balance compared to a new product
- waste avoidance through the use of used panels
- guaranteed physical building properties

LOOP aurum

Refurbished Raised Floor with Highest Standards to Sustainability

The raised floor panels, refurbished on five sides, are made of calcium sulphate. LOOP aurum does not require an edge trim or application on the underside. Self-laying floor coverings are laid on site.

By processing used panels, in conjunction with a take-back offer, it offers a carbon saving of 73 % compared to the equivalent new product.

- product managed in a cycle
- ecological footprint reduced to a minimum
- Cradle to Cradle Certified® Gold
- panel without plastic components

Further information on the floor system can be found here:

High Tech Campus, Villach, Austria
© Walter Luttenberger

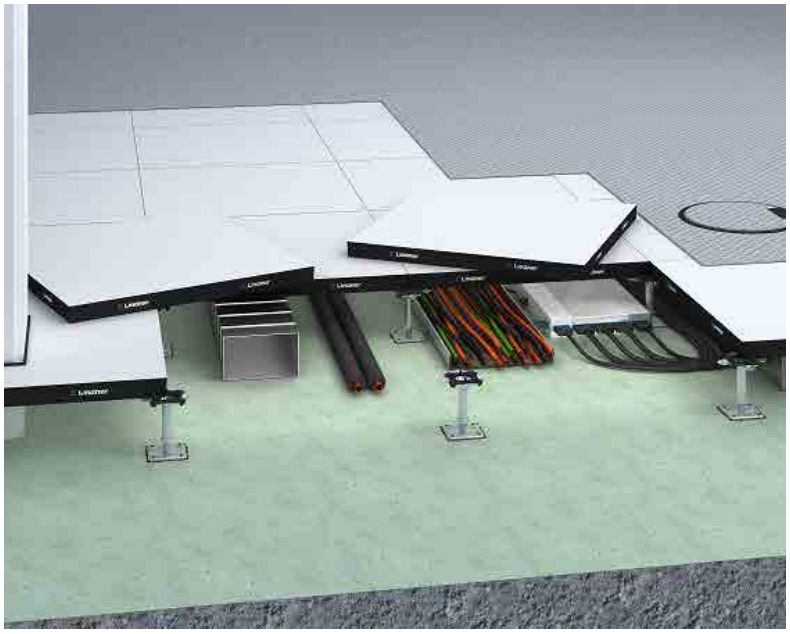
LOOP prime

Raised Floor Refurbished on Five Sides

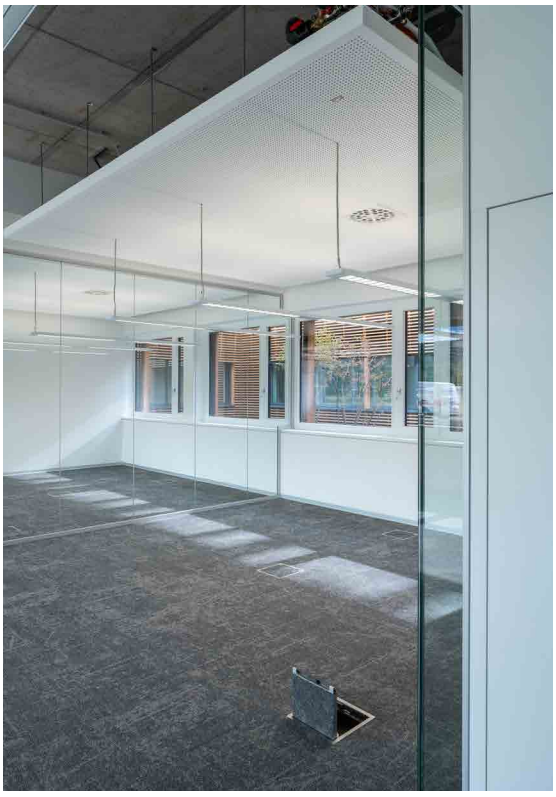
With its outstanding technical and physical properties, the LOOP prime Raised Floor System is the ideal product for almost all applications. The refurbished raised floor panels are made of calcium sulphate and are provided with a new edge trim for protection against impact and humidity.

By using refurbished raised floor panels, carbon savings are achieved compared to the equivalent new product. The savings can be verified on request.

- waste avoidance through the use of used panels
- Cradle to Cradle Certified® Silber



Further information on the floor system can be found here:



High Tech Campus, Villach, Austria
© Walter Luttenberger

Raised Floor made of Chipboard Panels

A True Economic Miracle

Our high-density chipboard panels are the best choice if quality and cost-effectiveness are equally important for your project. The conscientious selection of raw materials in our production process ensures low emission values. The raised floor panels made of chipboard are both a carbon sink and FSC®-certified, making them particularly sustainable. Thanks to their low weight, the floor panels are extremely easy to handle.

Cut-outs and cut-ins can also be easily realised. The remarkable dimensional accuracy enables extremely high joint tightness for air-ventilated floors. Depending on your requirements, a wide range of individual wishes can be catered for. Special formats are also possible. A careful selection of raw materials allows for the lowest possible emission values.

- low system weight
- very good price-performance ratio
- FSC™-certified carrier panel, making it particularly responsible
- difficult to ignite
- reduced subfloor load due to low surface weight

LIGNA

Raised Floor for Greater Efficiency

The good price-performance ratio of our LIGNA Raised Floor Panels makes them an interesting solution for a wide range of applications: These include office and technical rooms, for example. LIGNA is easy to work with – regardless of whether it is cut to size or making subsequent cut-outs. With its low weight, the raised floor panels are easy to handle.

Thanks to the special dimensional accuracy, an exceptionally high joint tightness is also possible with air-ducted floors.

- very flexible
- FSC™ certification possible
- user-friendly installation
- fulfils the requirements of the Indoor Air Comfort Gold label

Further information on the floor system can be found here:

AFI Vokovice, Prague, Czech Republic

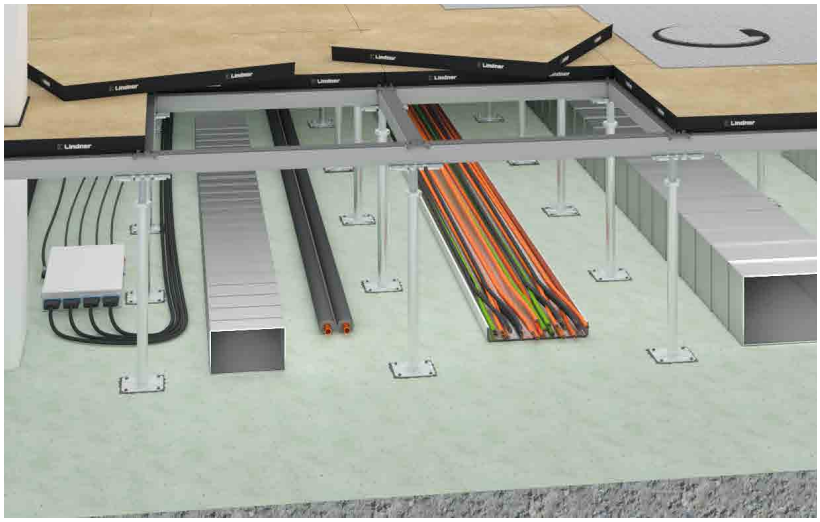
LIGNA power

Raised Floor for Heavy-Duty Areas

The LIGNA power Raised Floor System takes on the supporting role in heavy-duty applications. In many areas, floors have to withstand higher loads. This is the case in production halls, technical rooms and special areas, for example. LIGNA power offers a very high load capacity and can withstand high loads.

Thanks to the special dimensional accuracy, an exceptionally high joint tightness is also possible with air-ventilated floors.

- very high load capacity
- FSC™ certification possible
- user-friendly installation
- very flexible



Further information on the floor system can be found here:

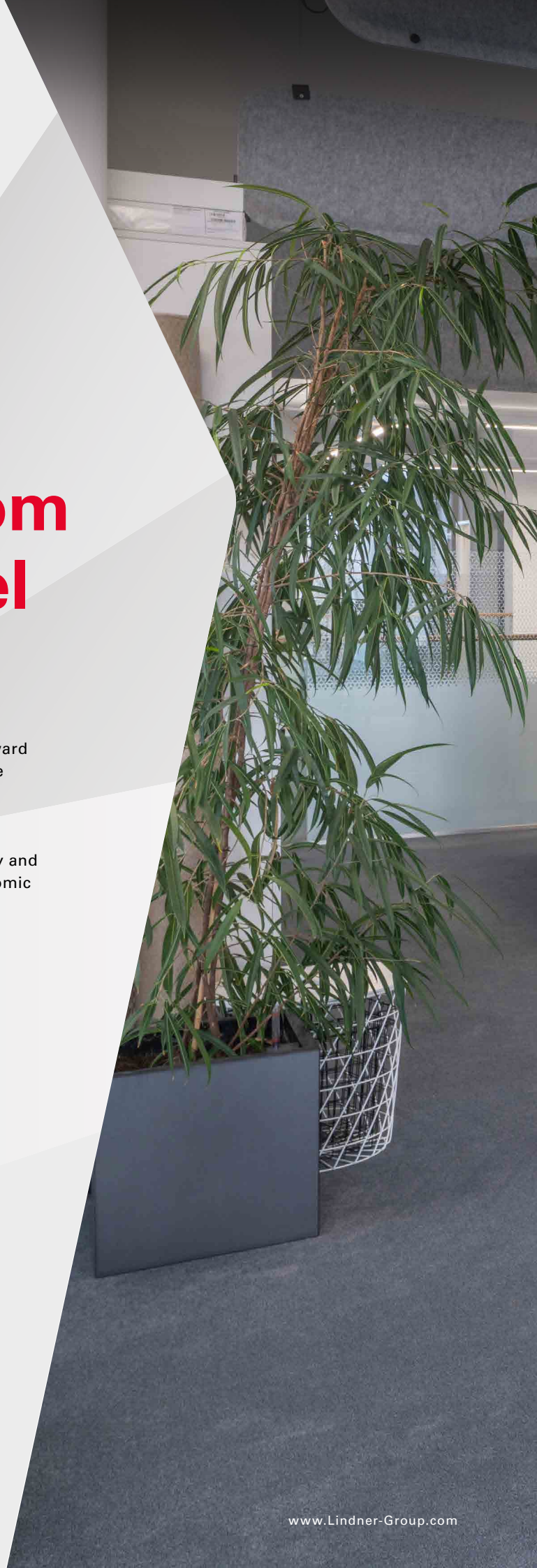
C&P Headquarters, Graz, Austria
© paul ott photografiert

Refurbished Raised Floor from Chipboard Panel

Sustainable and Powerful

Our refurbished chipboard panels mark a significant step forward in terms of sustainability within the construction industry. The floor panels offer an environmentally friendly alternative to conventional building materials. Manufactured from used raised floor panels made from chipboard, the panels undergo a special treatment process that ensures their quality, stability and durability. With a focus on ecological sustainability and economic efficiency, refurbished chipboard panels are setting new standards in environmentally conscious construction.

- reduction of the ecological footprint
- assurance of physical building properties
- cheaper to purchase than conventional products



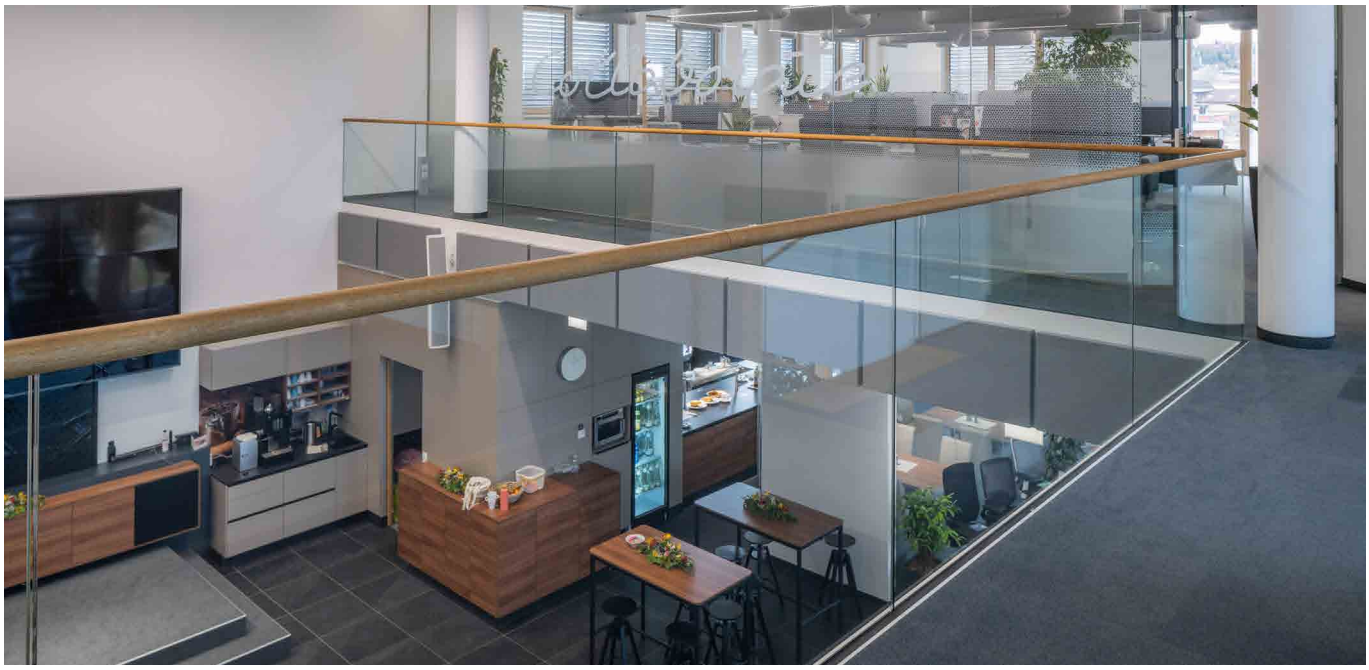
RELIFE

Refurbished Raised Floor

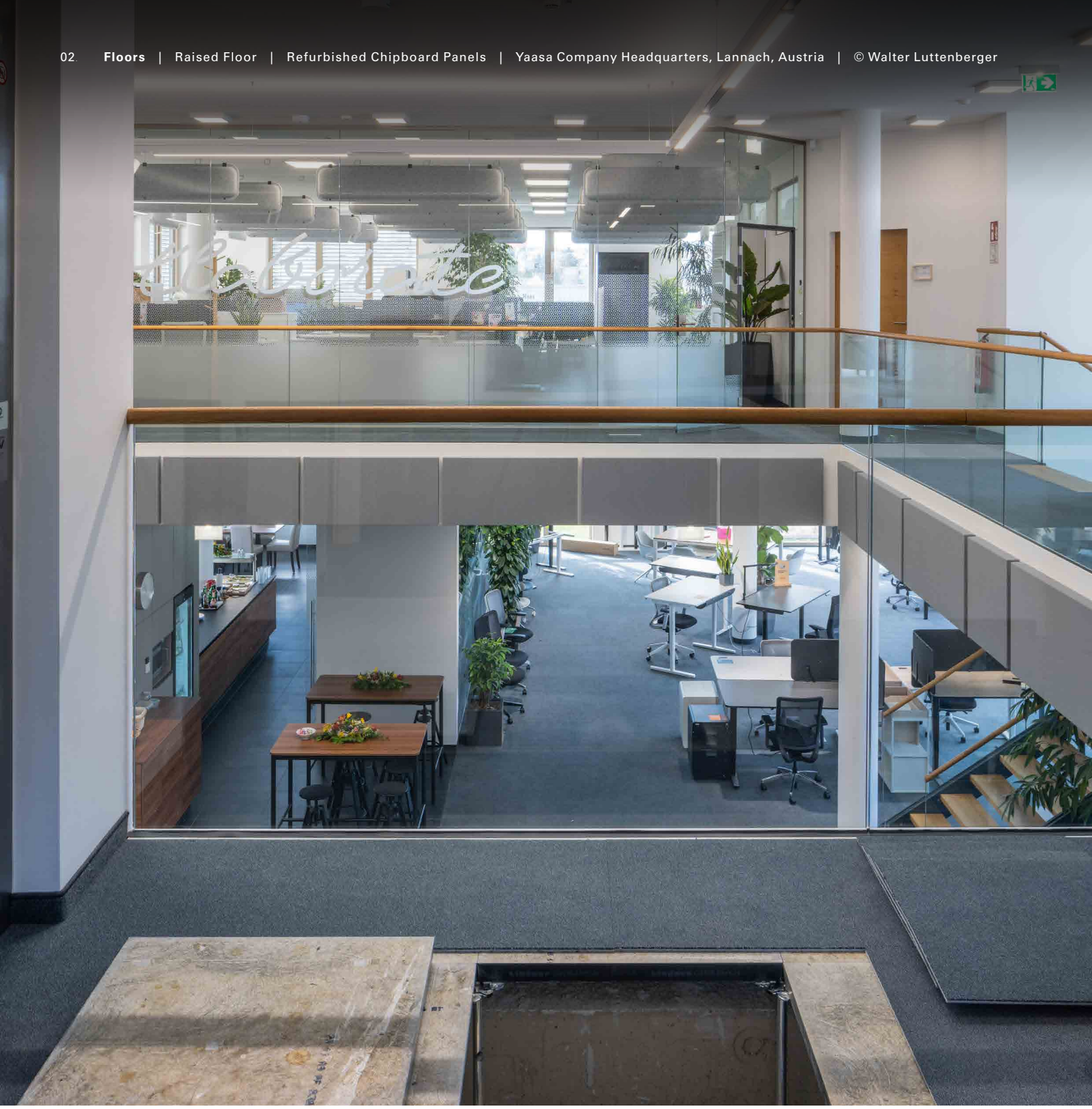
The RELIFE Raised Floor System impresses with its high flexibility, physical building properties and economic aspects. The Refurbished Raised Floor panels consists of high-density chipboard panels with humidity protection on the lower side and are provided with all round edge protection agains impact and humidity.

- guaranteed physical building properties
- resource-saving
- waste avoidance through the use of used panels

Further information on the floor system can be found here:



Yaasa company headquarters, Lannach, Austria
© Walter Luttenberger



Yaasa Company Headquarters, Lannach, Austria

Yaasa GmbH is a leading force in the online sale of ergonomically adjustable office furniture. With the construction of its new headquarters in Lannach, the company is creating space for innovation and up to 50 barrier-free workstations. The building fulfils the European goals of a “Nearly Zero Emission Building” and thus demonstrates Yaasa’s commitment to sustainability.

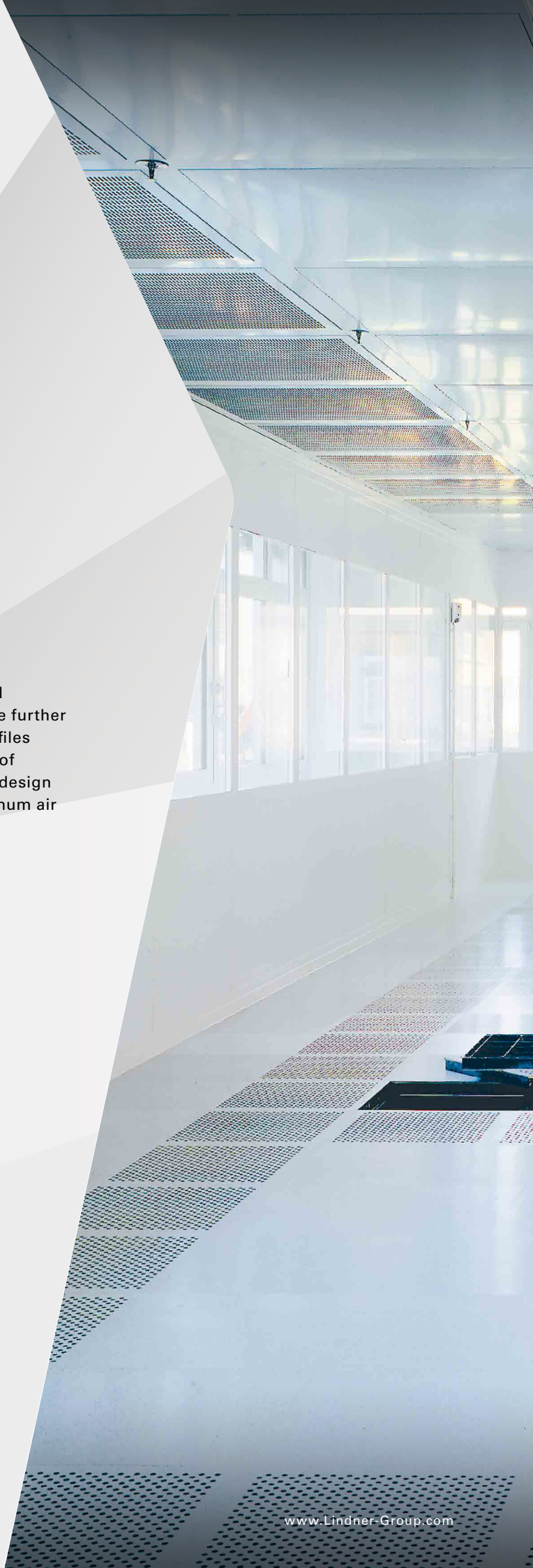
Lindner played a key role in the sustainable interior fit-out: by using raised floors made from refurbished chipboard panels, Lindner demonstrates how resource conservation and sustainability can be realised in practice in the construction industry. The floor panels offer the same physical and technical properties as a new flooring system without compromising the quality of the working environment.

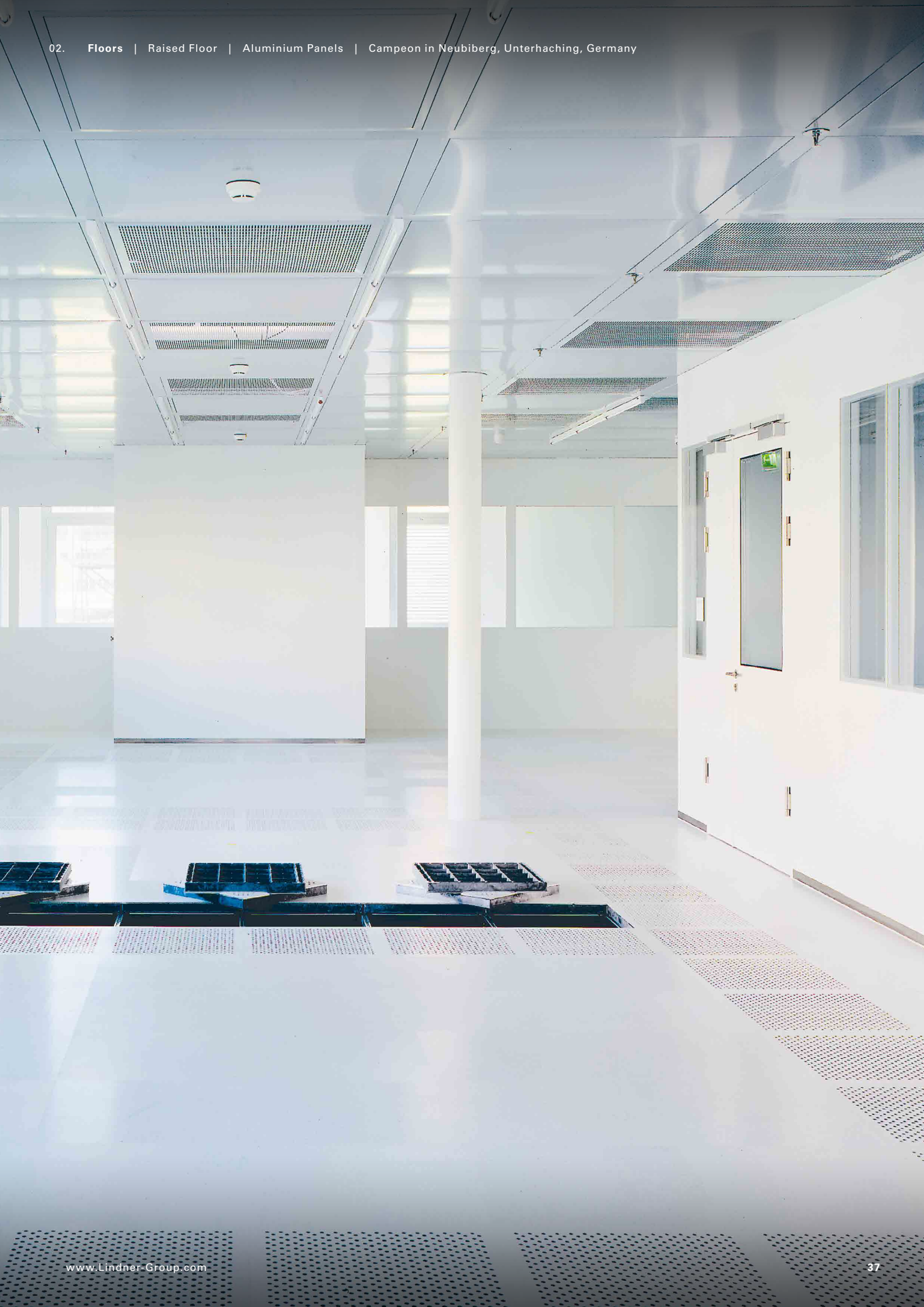
Aluminium Panels

Lightweight and Resilient

Our raised floors made of aluminium are ideal for the special requirements in technical rooms, e.g. for particularly high load capacities in machine or server areas. The load capacity can be further increased at certain points using additional reinforcement profiles in the substructure. The dead weight of the floor panels made of high-quality die-cast aluminium remains low. The orthotropic design enables generous, free cross-sections and thus supports optimum air circulation in your rooms.

- easy handling due to low weight
- can be combined with Lindner clean room systems
- excellent electrostatic properties
- manufactured with the highest precision and accuracy of fit
- suitable for clean rooms
- anti-magnetic and corrosion-resistant



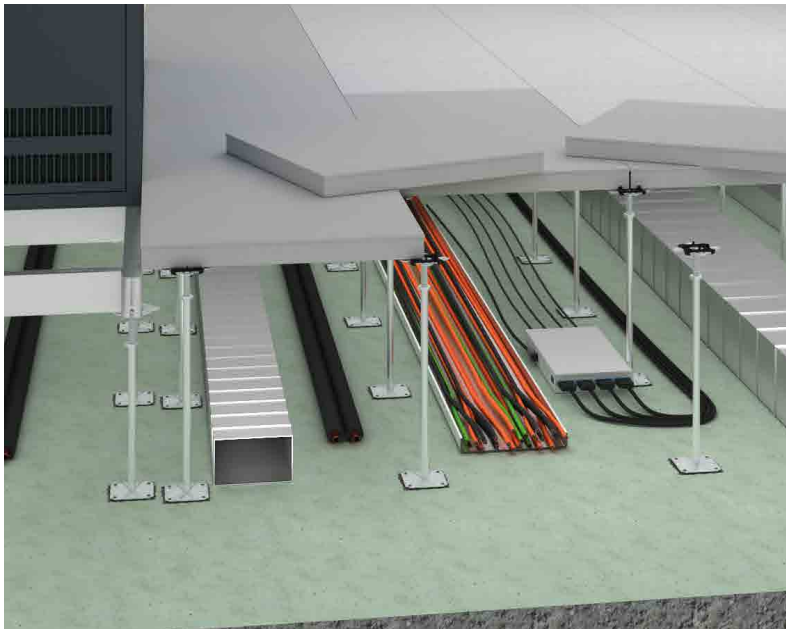


PRODATA

Aluminium Raised Floor for the Highest Requirements

The Raised Floor System PRODATA is based on a high-quality aluminium die-cast panel in orthotropic design, which is manufactured with the utmost precision and accuracy of fit. The high load capacity and aerodynamic abrasion resistance predestine PRODATA for use in all clean rooms and other areas of application with high technical requirements. The raised floor panels can optionally be realised with a floor covering or coating. The coating can be made conductive if required.

- very good electrostatic dissipation
- high load capacity with low deflection



Further information on the floor system can be found here:

Technical Centre, TU Dresden, Germany
© Michael Moser

ALUVENT

Aluminium Raised Floor with Perforation

Like PRODATA, the ALUVENT ventilation panel consists of a high-quality die-cast aluminium panel in an orthotropic design. PRODATA becomes ALUVENT when holes are drilled into it. The bending stiffness of the aluminium panels changes according to the drilling pattern and the number of holes. The system is available with various free cross-sections for ventilation purposes – ideal for your special requirements.

- very good electrostatic dissipation
- high load capacity with low deflection
- free ventilation cross-sections of up to 45 %

Further information on the floor system can be found here:

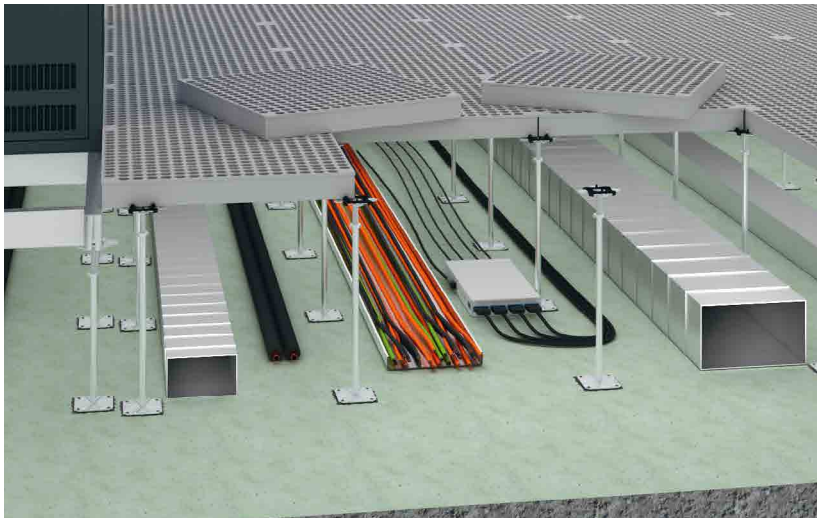
Campeon in Neubiberg, Unterhaching, Germany

OCTOGRATE

Aluminium Raised Floor with Ventilation Function

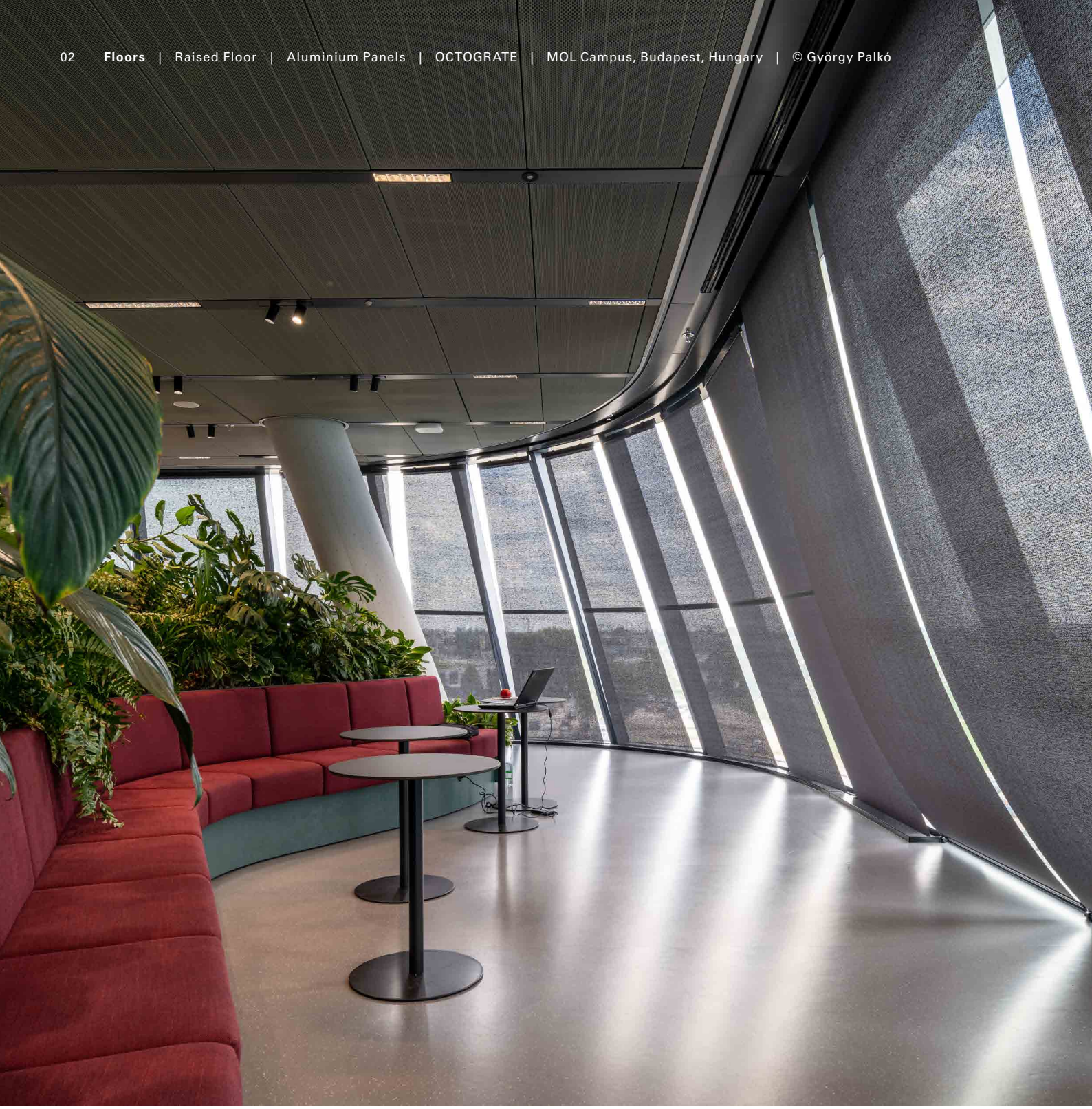
The OCTOGRATE Raised Floor System with a free cross-section of over 53 % was developed for clean room concepts in which extremely high air volumes are required with low pressure loss. OCTOGRATE is based on a high-quality aluminium die-cast panel in orthotropic design. This is usually coated with a conductive coating.

- excellent statics
- very good electrostatic dissipation
- excellent electrostatic properties
- integration of reinforcement profiles possible
- free cross-sections over 53 %



Further information on the floor system can be found here:

Technical Centre, TU Dresden, Germany
© Michael Moser



MOL Campus, Budapest, Hungary

The MOL Group, a leading company in the oil and gas sector, has moved into a new office building in the Budapart City district of Budapest. The MOL Campus, the tallest building in Hungary, combines the Group's business activities in a single skyscraper.

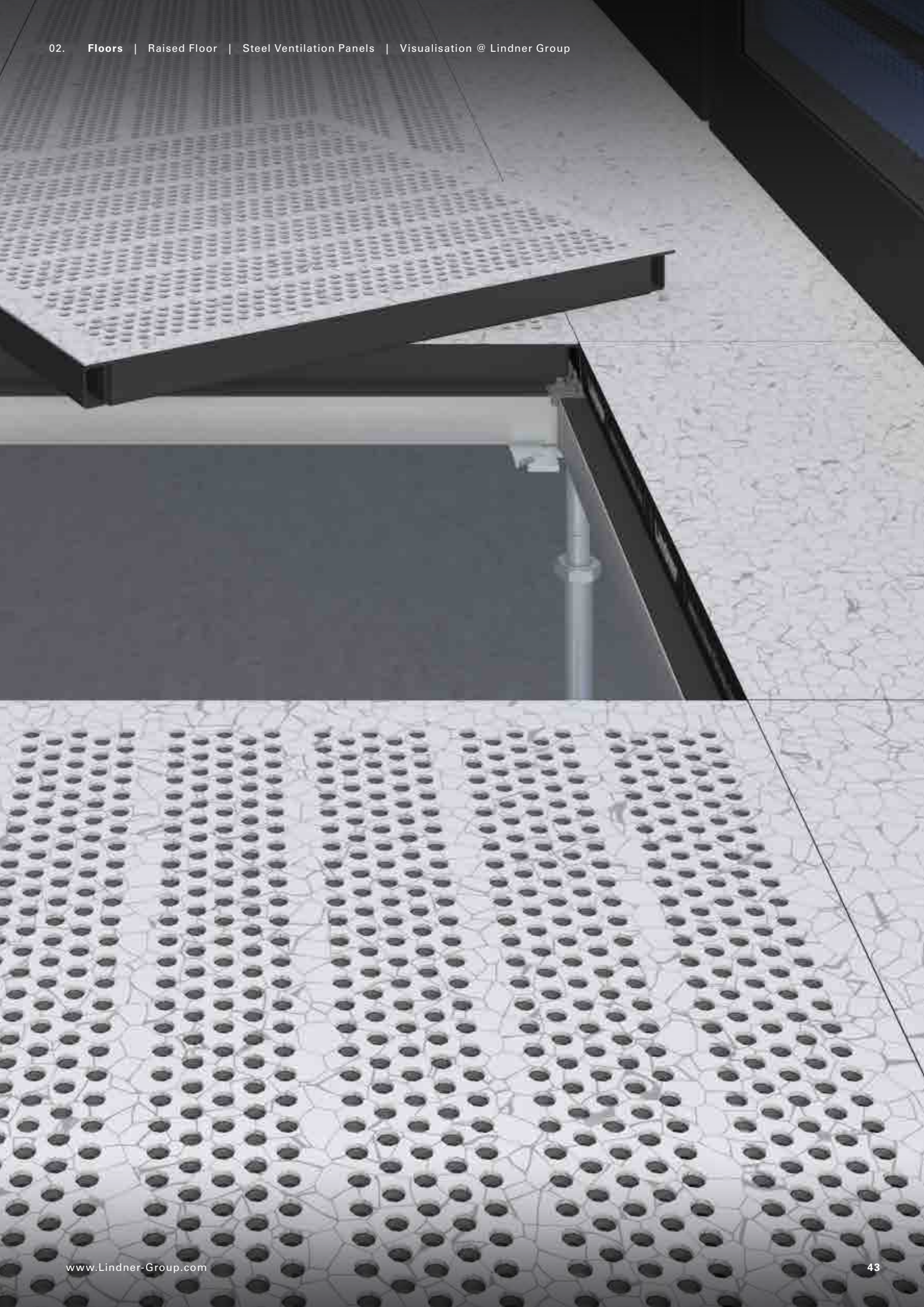
The Lindner Group played a key role in the construction of the MOL Campus. Around 33,000 m² of the Hollow Floor System FLOOR and more® G 40 was installed, which fulfils the REI 60 fire protection requirements and can withstand potential fire for a full 60 minutes. Lindner also installed around 1,200 m² of the NORTEC switchgear system for the server rooms. The realisation of the project required precise coordination on site, especially with electricians and other trades, as well as a tight schedule. At times, up to 2,500 m² of flooring was delivered per week. Thanks to excellent co-operation, the project was completed quickly

Raised Floor made of Steel Ventilation Panels

More space for more technology

Our steel ventilation panels consist of a welded tubular frame construction with a powder-coated surface and are particularly suitable for use in plant rooms, server rooms and data centres. Rooms or server racks can be ventilated by perforating the steel panels. This gives you a customised solution for every requirement.

- very high load capacity
- optionally with air volume control on the lower side of the panel
- can be combined with other Lindner raised floor systems



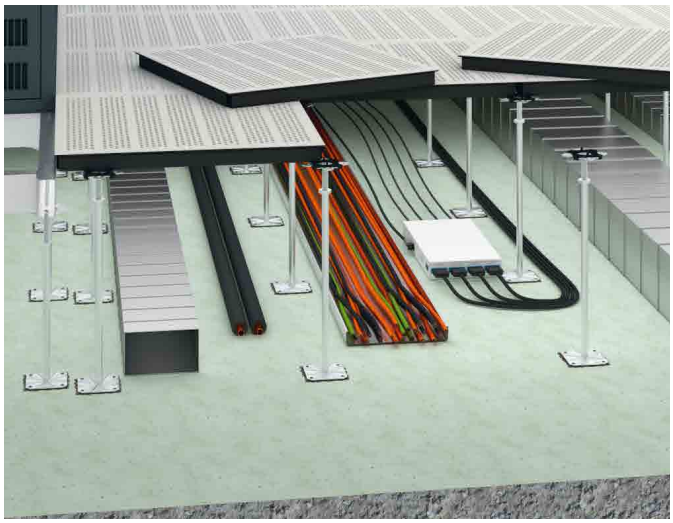
VENTEC

Raised Floor made of Steel Panels

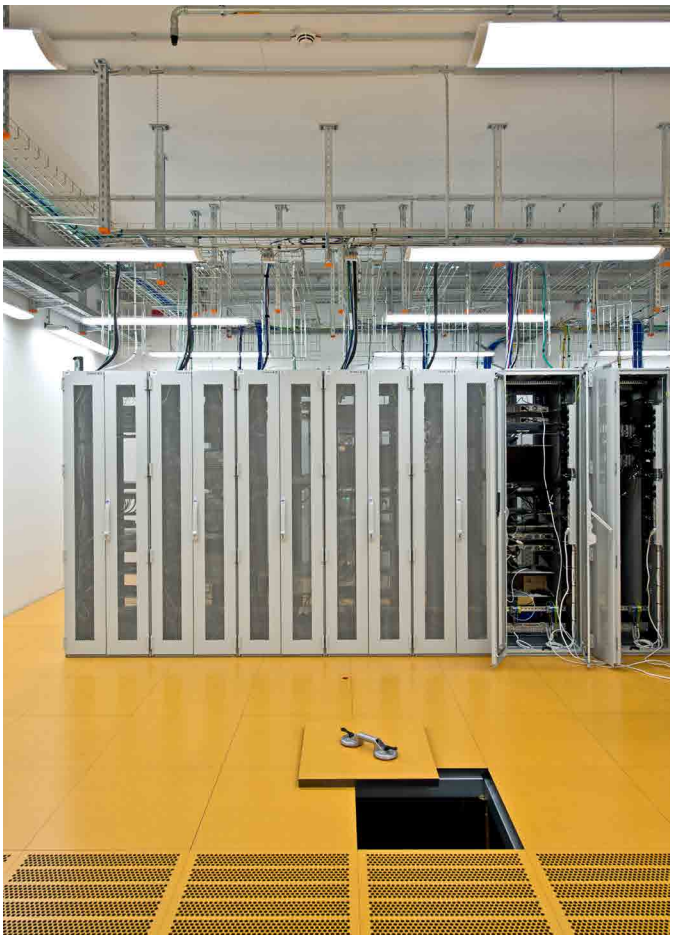
The VENTEC Raised Floor System is ideal for use in technical and server rooms as well as data centres. The extremely stable raised floor panels can be designed with or without perforation. We offer a wide range of possible free cross-sections. We can realise individual solutions on request.

The raised floor panels type VENTEC consist of a welded tubular frame construction with a powder-coated surface and either a closed or perforated cover sheet.

- optional panels with and without perforation
- free cross-section up to 38 % possible
- optional air volume control to control the air flow
- individual load requirements up to 15 kN and beyond possible



Further information on the floor system can be found here:



Berliner Verkehrsbetriebe, Friedrichsfelde control centre, Berlin, Germany

GBC 5, Bratislava, Slovakia

Galvaniho Business Centre 5 (GBC 5), designed by Architekti Šebo Lichý, finally opened its doors in 2021: as the last completed block, the office building completes the Bratislava business administration complex, consisting of various shopping parks, arcades, exhibition spaces, hotels and administrative buildings. Inspired by nature, the architects focused primarily on “green architecture” and integrated natural terraces, loggias and open spaces.

In cooperation with the local partner L-Group, Lindner was responsible for the production and installation of the floor systems. A total of almost 22,000 m² of the hollow floor systems FLOOR and more® G 30 and FLOOR and more® G 40 were installed. Despite its low weight, the dry hollow floors impress with their excellent properties in terms of load capacity, acoustics, fire protection and sustainability. The server rooms in the administration building had particularly high requirements for the floor: Lindner NORTEC G 38 ST and VENTEC S 38 R 38 raised floors were installed here – the extremely stable raised floor panels provide the necessary ventilation via the cavity.

Raised Floor made of Glass Panels

Decorative standpoint

Our LUMEN glass panels made of three-layer safety glass impress with their solid workmanship and versatile design options, such as optical surface designs or technical surface treatments. The toughened float glass with anti-slip screen printing and various transmission degrees are supported by a stable substructure of height-adjustable, galvanised steel pedestals. Integrated lighting solutions create an impressive atmosphere in the space. Experience the fusion of design, functionality and lighting concepts with the LUMEN Floor System.

- three-layer safety glass with high load capacity
- visual surface designs (company logos) and technical surface treatment (slip resistance) can be realised
- height-adjustable substructure

LUMEN

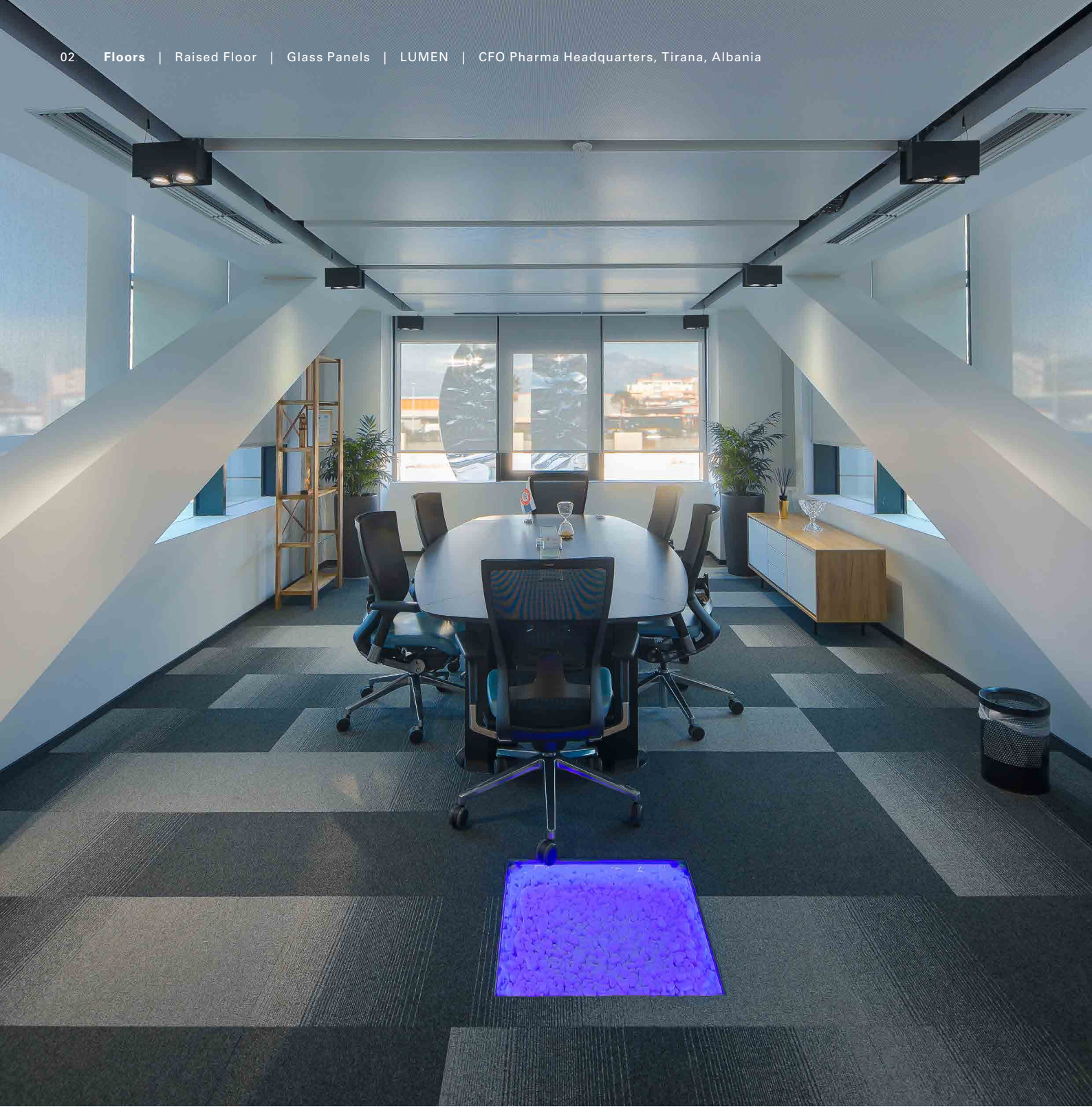
Raised Floor Made of Glass Panels

The LUMEN Raised Floor System opens up unusual insights and possibilities for striking lighting effects. Our raised floor system without reinforcement profiles can be easily combined with any Lindner system for an aesthetic and functional overall result. Customised glass panel dimensions according to customer requirements and integrated solutions with light and luminaires give your floor an impressive effect. Rely on our many years of experience in the field of lighting and let us take care of the lighting planning and calculation for you.

- easy integration into any Lindner system
- no reinforcement profiles necessary
- lighting effects possible

Further information on the floor system can be found here:

CFO Pharma Headquarters, Tirana, Albania



CFO Pharma Headquarters, Tirana, Albania

CFO Pharma is a leading Albanian pharmaceutical company, founded in 2002, specialising in the registration, import, distribution, sales, marketing, promotion and export of pharmaceuticals, medical devices and dietary supplements. Recently, the company established a new headquarters in Tirana to consolidate resources and support future growth.

The local Lindner Albania team contributed to the interior design of the new headquarters with the supply and installation of glass partitions and Lindner Free Timber and Lindner Free Metal wall panelling. Wooden and glass doors were seamlessly integrated into the partition wall systems. A large number of Lindner raised and hollow floor systems were also installed. Lindner metal ceilings, designed as a suspended system and as ceiling sails, completed the high-quality interior.

Hollow Floor

Under and Over – Everything in Perfect Order

Our hollow floors combine the advantages of a conventional screed surface with the benefits of a raised floor. The load layer is suitable for bonding all common top coverings. The pedestals in the “invisible” cavity enable an uncomplicated installation of the building services. The combination of hollow and raised floor allows maximum flexibility.

- best fire protection properties
- quick installation without additional drying
- very high load capacity with low base layer thickness
- seamless surface
- unlimited choice of floor coverings
- tested according to EN 13213 for hollow floors

Hollow Floor

	Technical Data		Acoustics	Fire Protection	
	Panel Thickness	**System Weight**	**Building and Room Acoustics** *acc. to ISO 10848 **acc. to ISO 10140	**Building Material Class** acc. to DIN 4102-1 and acc. to EN 13501-1	**Fire Resistance Class** *acc. to DIN 4102-2 **acc. to EN 13501-2
Calcium Sulphate Panels					
FLOOR and more® Dry hollow floor	30 - 40 mm	41 - 55 kg/m²	$D_{n,f,w}$: 36 - 59 dB* R_w: 62 - 64 dB** ΔL_w: 9 - 31 dB** $L_{n,f,w}$: 92 - 37 dB*	non-combustible	F 30* REI 30 and REI 60
FLOOR and more® power Dry hollow floor for heavy-duty areas	40 - 44.5 mm	62 - 83 kg/m²	–	non-combustible	F 30* REI 30 and REI 60
FLOOR and more® CLT Dry hollow floor on cross laminated timber ceiling	40 mm	approx. 210 kg/m²	without coating: $D_{n,f,w}$: 47 dB* R_w: 64 dB** $L_{n,w}$: 48 dB** with separation cut, without coating: $D_{n,f,w}$: 58 dB* $L_{n,f,w}$: 61 dB* with covering: $L_{n,w}$: 45 dB** $L_{n,f,w}$: 49 dB* with separation cut, with coating: $L_{n,f,w}$: 43 dB*	non-combustible	F 30* REI 30 and REI 60** possible with additional measures
FLOOR and more® acoustic Dry hollow floor for acoustic performance	40 - 70 mm	50 - 55 kg/m²	α_w: 0.15 -0.75*** class E - C	non-combustible	–
FLOOR and more® comfort Dry hollow floor with underfloor heating	40 - 44.5 mm	52 - 85 kg/m²	–	non-combustible	F 30* REI 30**
FLOOR and more® comfort CLT Dry hollow floor with underfloor heating on cross laminated timber ceiling	40 mm	approx. 220 kg/m²	without coating: $D_{n,f,w}$: 47 dB* R_w: 64 dB** $L_{n,w}$: 48 dB** with separation cut, without coating: $D_{n,f,w}$: 58 dB* $L_{n,f,w}$: 61 dB* with covering: $L_{n,w}$: 45 dB** $L_{n,f,w}$: 49 dB* with separation cut, with coating: $L_{n,f,w}$: 43 dB*	non-combustible	F 30* REI 30 and REI 60** possible with additional measures

	Statics	Climatig Regulation		Sustainability				
	Load Class acc. to DIN EN 13213	**Heating and Cooling** acc. to EN 1264	**Ventilation** acc. to DIN EN 1026	**Carbon-neutral**	**Cradle to Cradle Certified®**	**verified EPD** acc. to ISO 14025/ EN 15804	**FSC™-Certified**	**IBR-Test Seal**
	1 - 5 (2 kN - 5 kN)	–	–	optional	silver	✓	✓	✓
	6 (6 - 20 kN)	–	–	optional	silver	✓	✓	✓
	2 (3 kN)	–	–	–	silver	–	–	–
	2 - 5 (3 kN - 5 kN)	–	–	–	–	–	–	✓
	3 - 6 (4 kN - 15 kN)	heat output: 60 - 100 W/m² cooling capacity: 23 - 41 W/m²	–	–	–	–	✓	✓
	2 (3 kN)	heat output: Laying distance 100 mm: 76 W/m² cooling capacity: 40 W/m² Laying distance 150 mm: 66 W/m² cooling capacity: 33 W/m²	–	–	–	–	–	–

Hollow Floor

	Technical Data		Acoustics	Fire Protection	
	Panel Thickness	**System Weight**	**Building and Room Acoustics** *acc. to ISO 10848 **acc. to ISO 10140	**Building Material Class** acc. to DIN 4102-1 and acc. to EN 13501-1	**Fire Resistance Class** *acc. to DIN 4102-2 **acc. to EN 13501-2
Calcium Sulphate Panels					
FLOOR and more® arena Dry hollow floor for auditorium constructions	40 - 44.5 mm	70 - 80 kg/m²	–	non-combustible	F 90* (from above)
FLOOR and more® sonic Dry hollow floor for seepage ventilation	approx. 40 - 41 mm	approx. 42 - 52 kg/m²	–	non-combustible	–
Cement Fibre Panels					
HYDRO Dry hollow floor for areas with increased water exposure	40 mm	72 kg/m²	ΔL_w: 14 - 15 dB***	non-combustible	REI 30**
HYDRO power Dry hollow floor for humid/heavy-duty areas	40.5 - 44.5 mm	75 - 85 kg/m²	R_w: 64 dB** ΔL_w: 14 - 15 dB***	non-combustible	REI 30**
HYDRO comfort Dry hollow floor with heating and cooling function in areas with increased water exposure	40.5 - 44.5 mm	80 - 85 kg/m²	R_w: 64 dB** ΔL_w: 14 - 15 dB***	non-combustible	–

	Statics	Climatig Regulation		Sustainability				
	Load Class acc. to DIN EN 13213	**Heating and Cooling** acc. to EN 1264	**Ventilation** acc. to DIN EN 1026	**Carbon-neutral**	**Cradle to Cradle Certified®**	**verified EPD** acc. to ISO 14025/ EN 15804	**FSC™-Certified**	**IBR-Test Seal**
	3 (4 kN/5 kN/m²)	–	–	–	✓	✓	✓	✓
	1 - 5 (2 kN - 5 kN)	–	free cross-section: 4 - 24 %, Air flow rate: 192 - 1,294 m³/h	–	✓	–	–	–
	5 - 6 (5 kN - 15 kN)	–	–	–	–	–	✓	–
	6 (10 kN - 15 kN)	–	–	–	✓	–	–	–
	3 - 6 (4 kN - 14 kN)	Heat output: 64 - 79 W/m² Cooling capacity: 31 - 41 W/m²	–	–	✓	–	–	–

Calcium Sulphate Panels

Enjoy Ongoing Comfort

Experience and continuous development set standards in a wide range of applications: The pleasant appearance with excellent sound insulation and the wide range of possible combinations with other floor systems make the panels a widely applicable product. When manufacturing the floor panels in our own production facilities, we pay particular attention to the high quality of the raw materials: free of harmful emissions, our calcium sulphate panels are certified by the Institute for Building Biology in Rosenheim as harmless to building biology. Almost all of our fibre-reinforced gypsum panels are also FSC™-certified thanks to the use of pre-consumer waste paper. Thanks to the numerous advantages of our floor panels, there are virtually no limits to your imagination when it comes to the area of use and the choice of surface coverings.

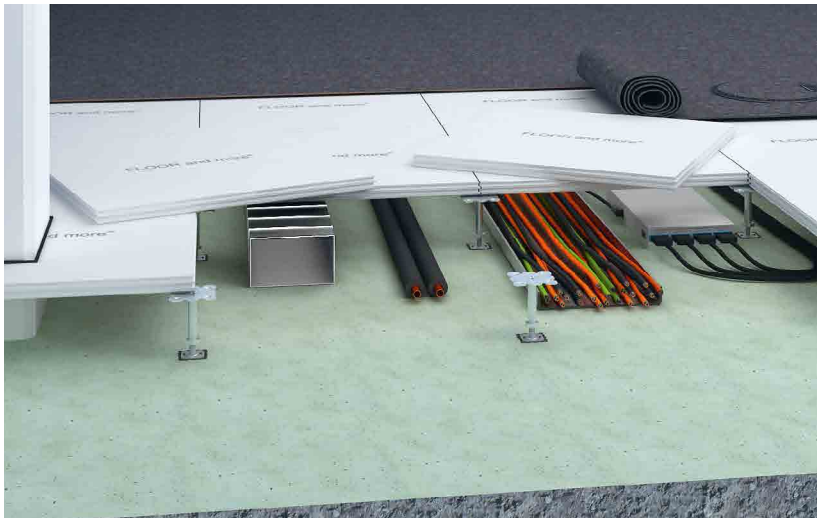
- very high load capacity
- non-combustible
- biologically harmless
- up to 100 % recycled content "in the carrier panel"
- FSC™-certified
- Cradle to Cradle Certified®
- resource-saving through the use of FGD gypsum

FLOOR and more®

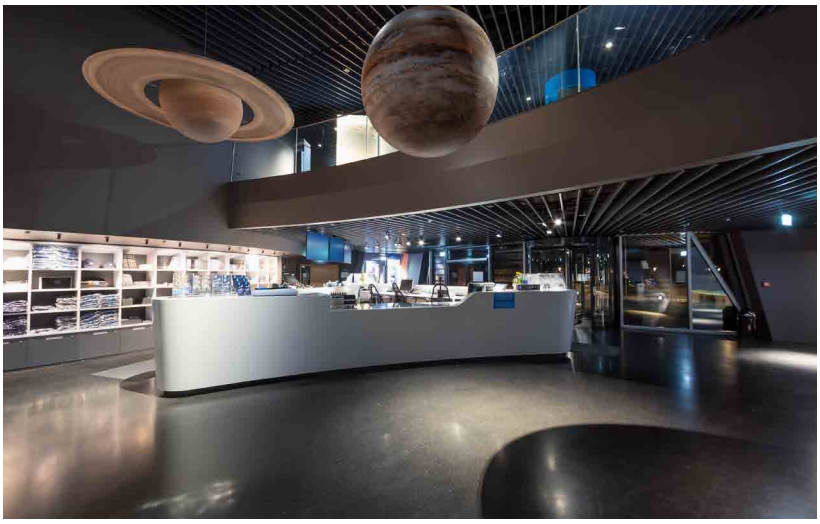
Dry Hollow Floor

The FLOOR and more® Dry Hollow Floor System provides stability and represents a high level of technology. As the surface is already ready for laying in the factory, only very short drying times are required before the covering can be laid.

- quick to install dry hollow floor system
- can be used after just one day
- suitable for all floor coverings



Further information on the floor system can be found here:



ESO Supernova Planetarium & Visitor Centre, Garching, Germany
© ESO/P. Horálek

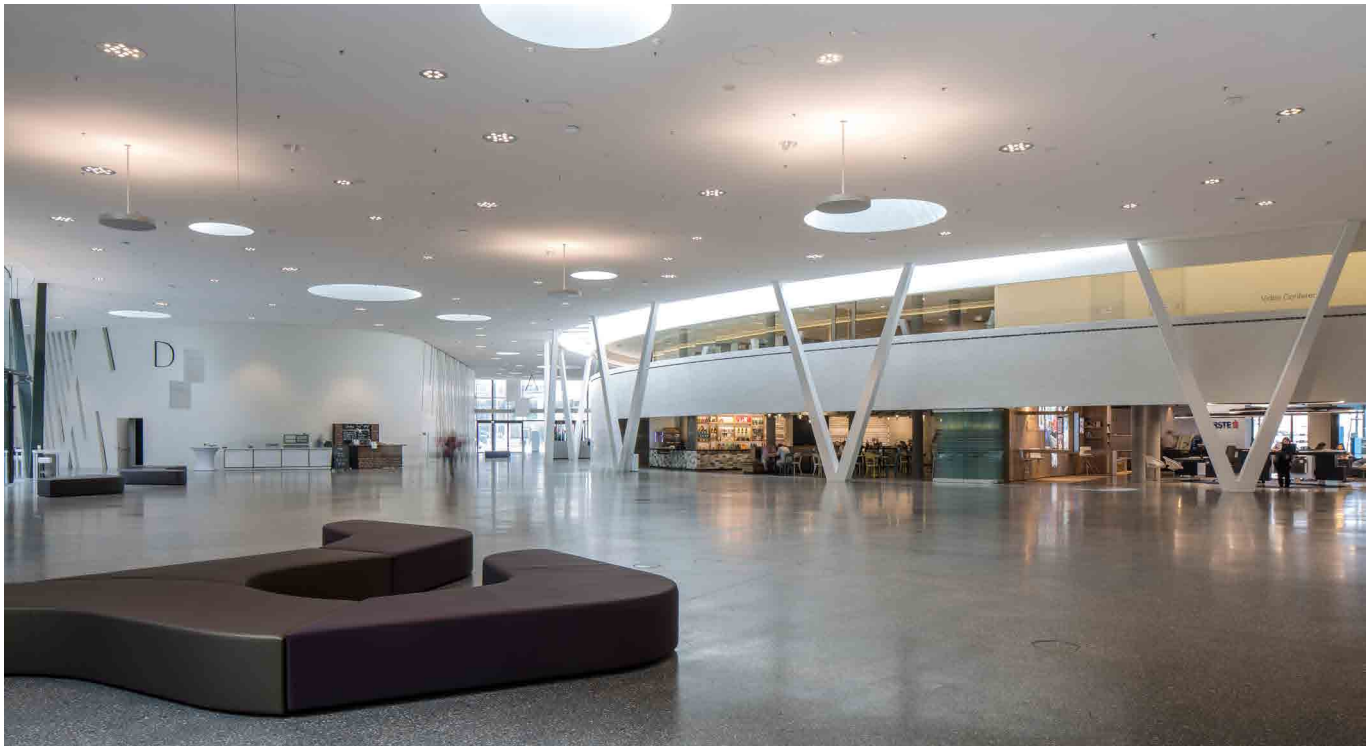
FLOOR and more® power

Dry Hollow Floor for Heavy-duty Areas

The FLOOR and more® power Dry Hollow Floor System was developed especially for heavy-duty areas. The hollow floor panels type power consist of fibre-reinforced calcium sulphate with an optimised panel mixture and are optionally applied with a steel sheet on the lower side.

- single-layer design up to 24 kN point load
- accessible with heavy lifting platforms and vehicles
- no reinforcement profiles necessary
- very high load capacity with low base layer thickness

Further information on the floor system can be found here:



Erste Campus, Vienna, Austria
© Walter Luttenberger

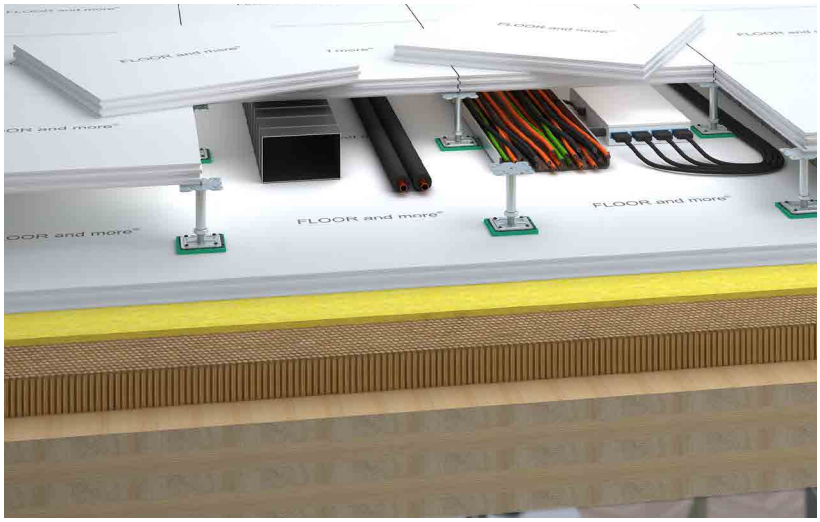
FLOOR and more® CLT

Dry Hollow Floor on Cross Laminated Timber Ceiling

The FLOOR and more® CLT Dry Hollow Floor System provides stability and represents a high level of technology. The hollow floor panels are made of fibre-reinforced calcium sulphate.

The FLOOR and more® hollow floor panels in combination with a dry mineral fill and a decoupling layer create the necessary weighting of the solid wood floor, which can be used ideally as a substrate for the necessary installation for use on solid wood floors in multi-storey timber construction.

- acoustic optimisation of solid wood ceilings
- fire protection upgrading of the wooden ceiling possible
- complete system can be dismantled according to type
- future-proof thanks to maximum flexibility
- almost free choice of floor covering



Further information on the floor system can be found here:

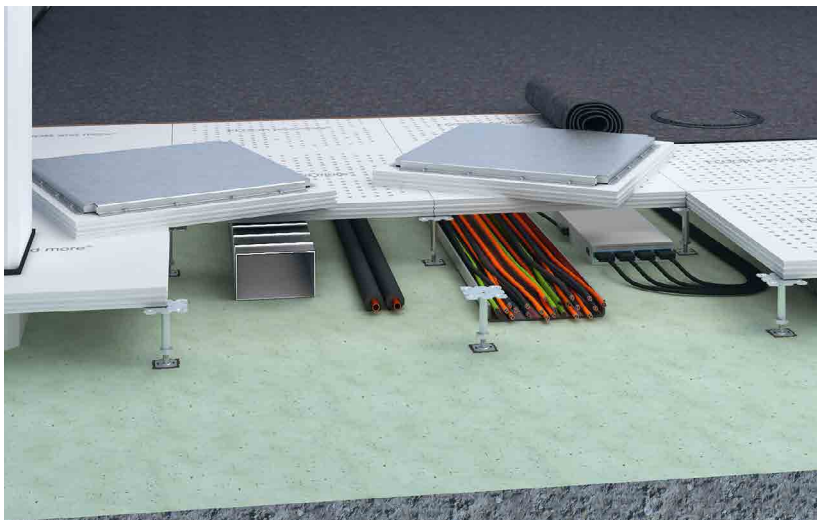
OPES Works, Oberhaching, Germany
© Dietrich | Untertrifaller Architekten

FLOOR and more® acoustic

Dry Hollow Floor for Acoustic Performance

The FLOOR and more® acoustic dry hollow floor system is used to acoustically optimise rooms. The perforated hollow floor panels type acoustic consist of fibre-reinforced calcium sulphate, a qualified top covering and optional project-related cavity damping, acoustic fleece or an acoustic element to regulate the room acoustics or optimise the degree of sound absorption.

- improves the room acoustics
- free room design for walls and ceilings thanks to hidden sound absorption level in the floor
- wide range of options thanks to a large selection of tested system-top covering combinations
- different spectra of effectiveness due to customised systems



Further information on the floor system can be found here:

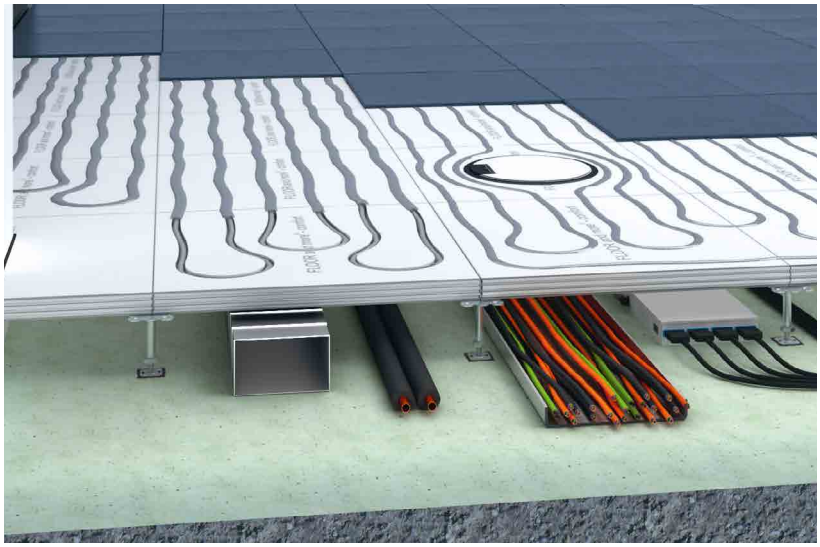
Webasto, Stockdorf, Germany
© Webasto | Fotograf Gabriel Büchelmeier

FLOOR and more® comfort

Dry Hollow Floor with Underfloor Heating

With its intelligent heating and cooling system, the FLOOR and more® comfort dry hollow floor system ensures a pleasant indoor climate. Pre-milled grooves on the top to accommodate the heating and cooling pipes are closed with filling compound after installation.

- fast response time for heating and cooling
- energy-saving due to low flow temperature
- fast construction time due to high degree of prefabrication
- low moisture input
- very short drying time
- almost free choice of floor covering
- minimal base course structure



Further information on the floor system can be found here:

Horten Headquarters, Copenhagen, Denmark
© Adam Mørk

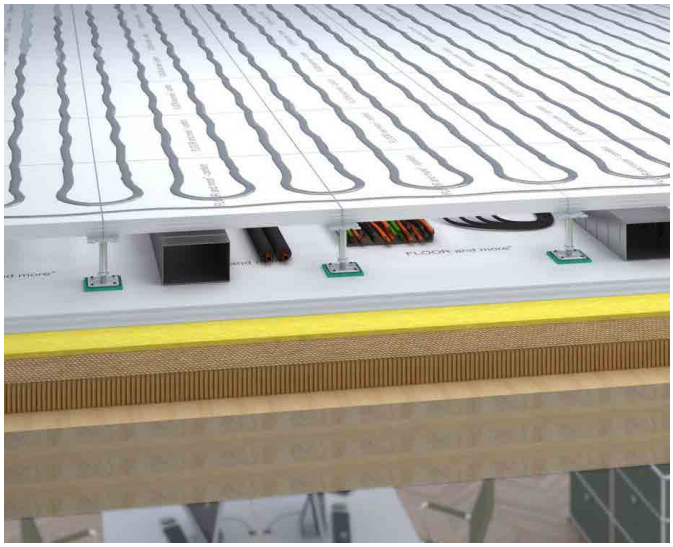
FLOOR and more® comfort CLT

Dry Hollow Floor with Underfloor Heating on Cross Laminated Timber Ceiling

With its intelligent heating and cooling system, the FLOOR and more® comfort dry hollow floor system ensures a pleasant indoor climate. The comfort type hollow floor panels are made of fibre-reinforced calcium sulphate. Pre-milled grooves on the top to accommodate the heating and cooling pipes which are closed with filling compound after installation.

The FLOOR and more® comfort Hollow Floor Panels in combination with a dry mineral fill and a decoupling layer create the necessary weighting of the solid wood floor, which can be ideally used as a substrate for the necessary installation.

- combination of underfloor heating and acoustic optimisation of solid wood ceilings
- fire protection upgrading of the wooden ceiling possible
- future-proof thanks to maximum flexibility
- almost free choice of floor covering



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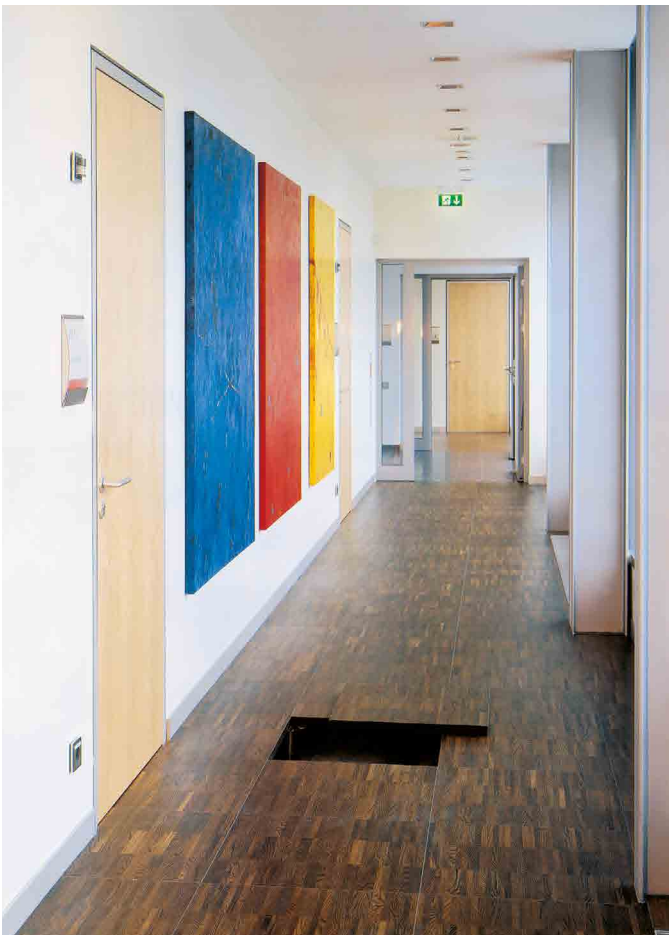


Sparkasse Mainfranken, Würzburg, Germany

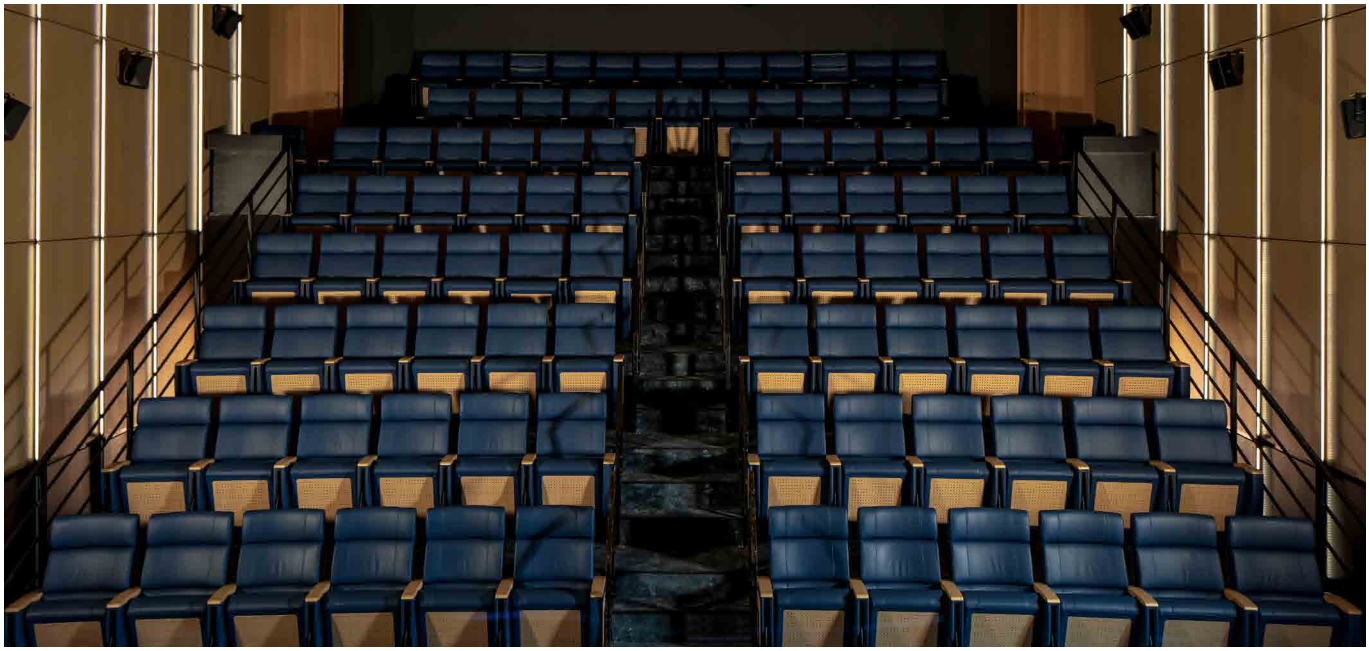
FLOOR and more® arena

Dry Hollow Floor for Auditorium Constructions

Building stand constructions in cinemas, concert halls and auditoriums always places extraordinary and project-specific demands on the floor construction. Solid yet quick to install, comparatively light yet highly resilient, with a high degree of prefabrication and at the same time extremely flexible – this system floor is up to any challenge. The load-bearing layer made of FLOOR and more® elements fulfils building material class A1 (non-combustible). FLOOR and more® arena adapts to any installation situation, whether on a level, sloping or stepped subfloor. Radial or polygonal construction or the design as a pressurised floor are also possible at any time.

- highly load layer
- can be designed as a pressurised floor for ventilation
- all step shapes (straight, radial or free-form) possible
- customisable to individual project requirements
- fire resistance F 90 possible from above

Further information on the floor system can be found here:



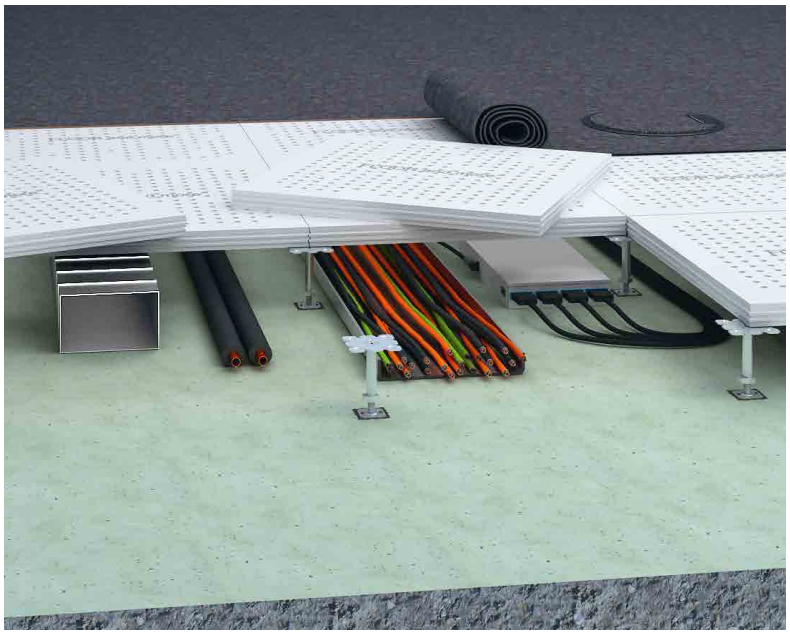
Nishith Desai Associates (NDA), Alibag, India
© Ales Photography

FLOOR and more® sonic

Dry Hollow Floor for Seepage Ventilation

The FLOOR and more® sonic dry hollow floor system offers sophisticated ventilation for an optimum indoor climate. It supplies rooms with fresh air that flows directly from the floor cavity. Perforated floor panels ensure ideal air circulation. The floor with ventilation function remains hidden beneath a seepage ventilation covering. With this innovative floor system, you create a particularly pleasant room climate and annoying draughts are now a thing of the past.

- very high air flow rate
- invisible seepage ventilation
- invisible perforation



Further information on the floor system can be found here:

HVB Tower, Munich, Germany
© HGEsch Photography

Cement Fibre Panels

Where Humidity is the Order of the Day

Our high-density cement fibre panels are the ideal solution for high-traffic areas with increased humidity ingress and for humid environments. The humidity-resistant floor panels effectively prevent water absorption. They can therefore be used in a wide variety of areas – for example in entrance halls of public buildings and in hotels. They are also suitable for kitchen areas. The high-density cement fibre panels FSC™-certified thanks to the use of pre-consumer waste paper and thus make their contribution to responsible forest management. There are numerous options open to you when it comes to the choice of floor coverings.

- highly loadable
- non-combustible
- mould-resistant

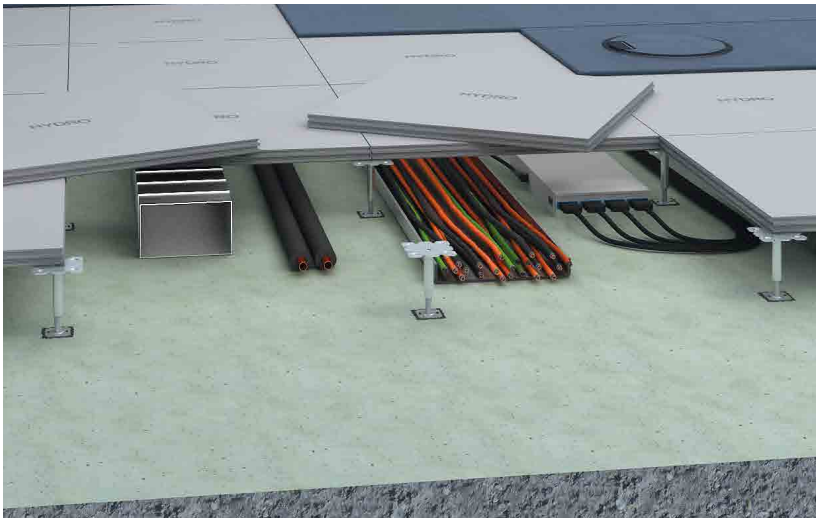
HYDRO

Dry Hollow Floor for Areas with Increased Exposure to Water

The HYDRO Dry Hollow Floor System was specially developed for areas with increased humidity exposure. The humidity-resistant HYDRO hollow floor system consists of highly compressed cement fibre panels that effectively prevent water absorption. The HYDRO Panels are bonded by a milled tongue and grooving on the edges of the panels, creating a closed load layer.

- suitable for rooms with increased humidity ingress
- very high load capacity
- quick installation
- humidity-resistant
- mould-resistant
- non-combustible

Further information on the floor system can be found here:



Frankfurt Airport – My Cloud Hotel, Frankfurt, Germany

HYDRO power

Dry Hollow Floor for Humid/Heavy-Duty Areas Duty Areas

The HYDRO power Dry Hollow Floor System was specially developed for heavy-duty areas and for surfaces with increased humidity ingress. The humidity-resistant flooring system consists of highly compressed cement fibre panels with an optimised panels mixture. That effectively prevents water absorption. The HYDRO power Panels are bonded by a milled tongue and grooving on the edges of the panel, creating a closed load layer.

- single-layer design up to 15 kN point load
- accessible with heavy lifting platforms and vehicles
- no reinforcement profiles necessary
- suitable for rooms with increased humidity ingress
- humidity-resistant
- mould-resistant

Further information on the floor system can be found here:

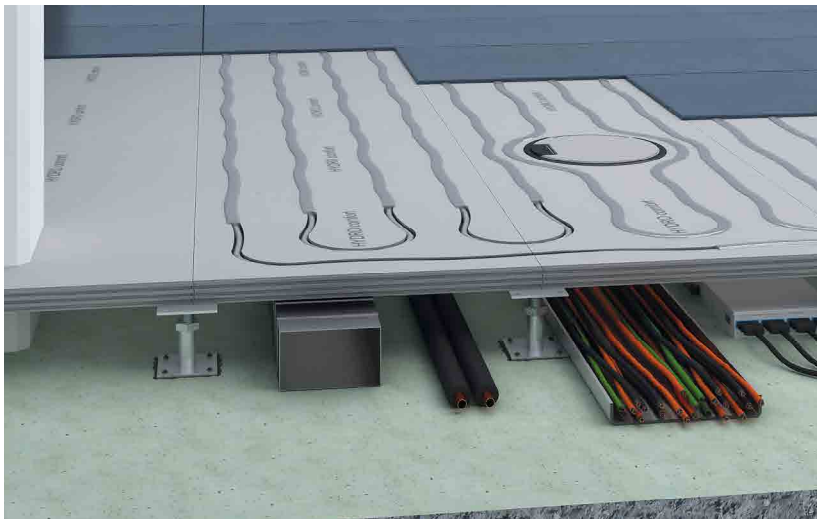
arabeska, Munich, Germany

HYDRO comfort

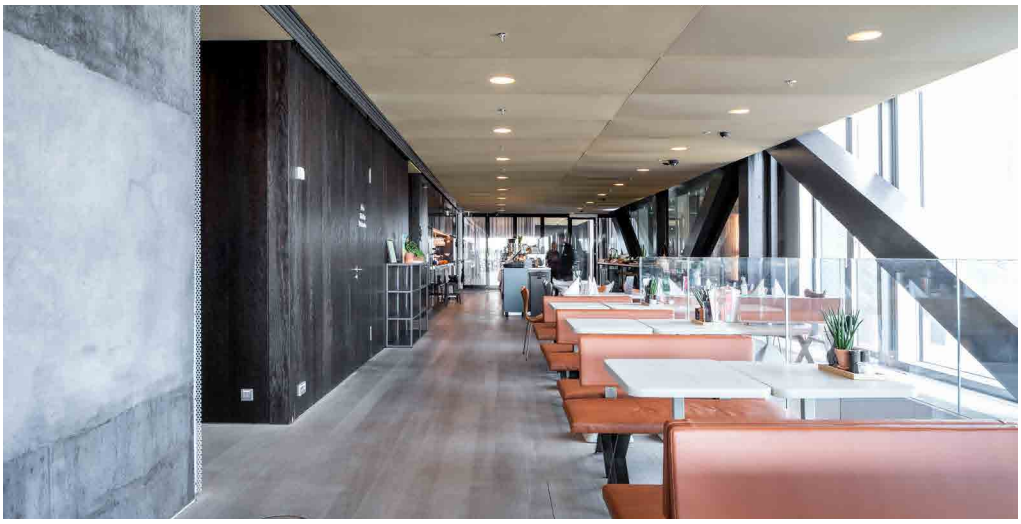
Dry Hollow Floor for Humid Areas with Underfloor Heating

The HYDRO comfort Dry Hollow Floor System was specially developed for areas with increased humidity exposure and ensures a pleasant room climate with its intelligent heating and cooling system. The humidity-resistant floor system consists of highly compressed cement fibre panels that effectively prevent water absorption. Pre-milled grooves on the top to accommodate the heating and cooling pipes are closed with filling compound after installation. The HYDRO panels are bonded via a milled tounge and grooving on the edges of the panels, creating a closed load layer.

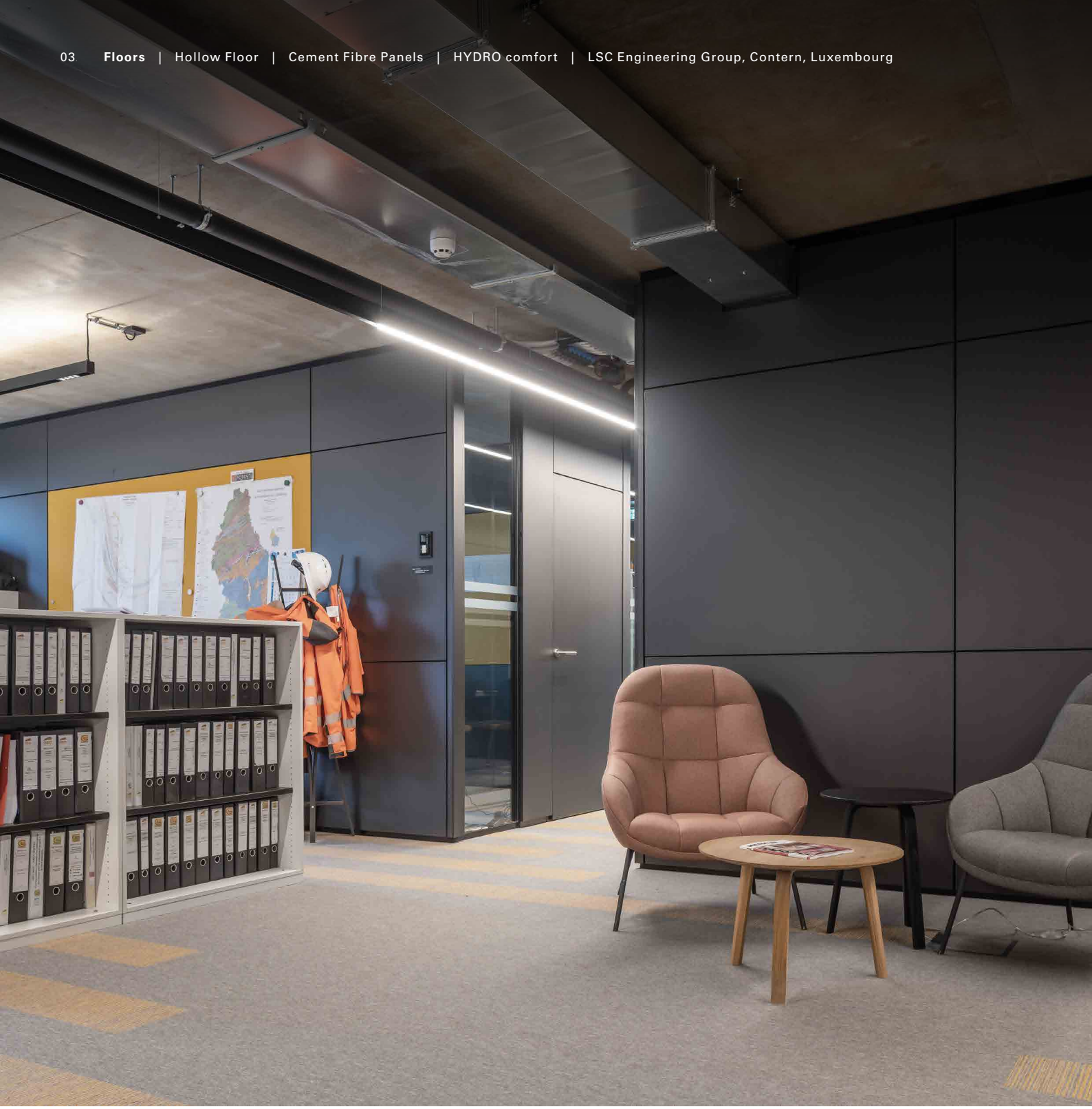
- fast response time for heating and cooling
- energy-saving due to low flow temperature
- fast construction time due to high degree of prefabrication
- very short drying time
- minimal load layer thickness
- humidity-resistant
- mould-resistant



Further information on the floor system can be found here:



BLOX, Copenhagen, Denmark



LSC Engineering Group, Contern, Luxembourg

The LSC Engineering Group has relocated its new headquarters to a 7,200 m² administrative complex in Contern, Luxembourg. The building offers open-plan office space, a staff restaurant, a walkable roof and green outdoor areas for around 300 employees. Sustainable materials, renewable energy and circular construction ensure resilience. Removable wooden facades allow quick extensions.

The Lindner Group carried out the sustainable wall and floor work. Wooden and glass partitions separate corridor and office areas, complemented by door portals and modern technical panels – perforated absorber elements improve the acoustics. The LIGNA Raised Floor was customised to the respective requirements of the office and technical rooms. In sanitary areas the water-resistant HYDRO floor with tiles ensures longevity. The FLOOR and more® variant with parquet and tiling was perfect for the reception area.

Substructure

Support from Below

Floor systems need strong substructures that can withstand high loads: Our substructures not only support the floor panels, they also create the floor cavity to accommodate the MEP installations. Thanks to our in-house production, we guarantee consistently high quality and are able to cater for individual requirements – entirely according to your wishes.

- interface optimisation through in-house production of system components
- high quality
- very high loads possible
- Made in Germany

Pedestals

Raised Floor Pedestals

We use raised floor pedestals made of galvanised steel as a substructure for our raised floor systems – in conjunction with gaskets and optionally with stringers type RO, RL and RM. The floor pedestals create a cavity to accommodate the MEP installations. The manufacturing from design to production, including galvanisation is fully realised at Lindner. With their high load capacity and large adjustment range, our raised floor pedestals also offer exceptional flexibility. They are infinitely adjustable in height and can therefore compensate for unevenness in the subfloor.

	Technical Data	Statics			
	Adjustment range	**Load class** acc. to EN 12825	**Point load**	**Coating**	**Schematic respresentation**
M	13 - 1,750 mm	2	3 kN	✓	
H	13 - 1,485 mm	5	5 kN	✓	
S	75 - 1,135 mm	6	6 kN	✓	

Hollow Floor Pedestals

We use hollow floor pedestals made of galvanised steel as the substructure for our hollow floor systems. The floor pedestals create the cavity to accommodate the MEP installations. The manufacturing from design to production, including galvanisation, is realised at Lindner. With its high load capacity and large adjustment range, the hollow floor pedestals also offers exceptional flexibility. The pedestals are infinitely adjustable in height and can thus compensate for unevenness in the subfloor.

	Technical Data	Statics			
	Adjustment range	**Load class** acc. to EN 12825	**Point load**	**Coating**	**Schematic respresentation**
L	40 - 1,490 mm	5	5 kN	✓	
P **PM** **PH**	133 - 1,954 mm	6	10 kN up to 20 kN	✓	

Switchgear Pedestals

As a substructure for our raised floor systems, we offer switchgear pedestals made of galvanised and blue passivated steel in conjunction with CL, CS, CX, CM and CH reinforcement profiles. The floor pedestals create the cavity to accommodate the MEP installations. They are realised from design to production including galvanisation, entirely at Lindner. With their high load capacity and large adjustment range, the switchgear pedestals also offer exceptional flexibility. They are infinitely adjustable in height and can therefore compensate for uneven subfloors.

	Technical Data	Statics			
	Adjustment range	**Load class** acc. to EN 12825	**Point load**	**Coating**	**Schematic respresentation**
SW	13 - 1,750 mm	5	5 kN	✓	
SWU	131 - 1,630 mm	5	5 kN	✓	
SW120, SWM120, SWH120	133 - 1,954 mm	6	5 kN up to 15 kN	✓	

Reinforcement Profiles

Lindner floor systems already have high load capacities as standard. If these are not yet sufficient, customised reinforcement profiles can be added to the system.

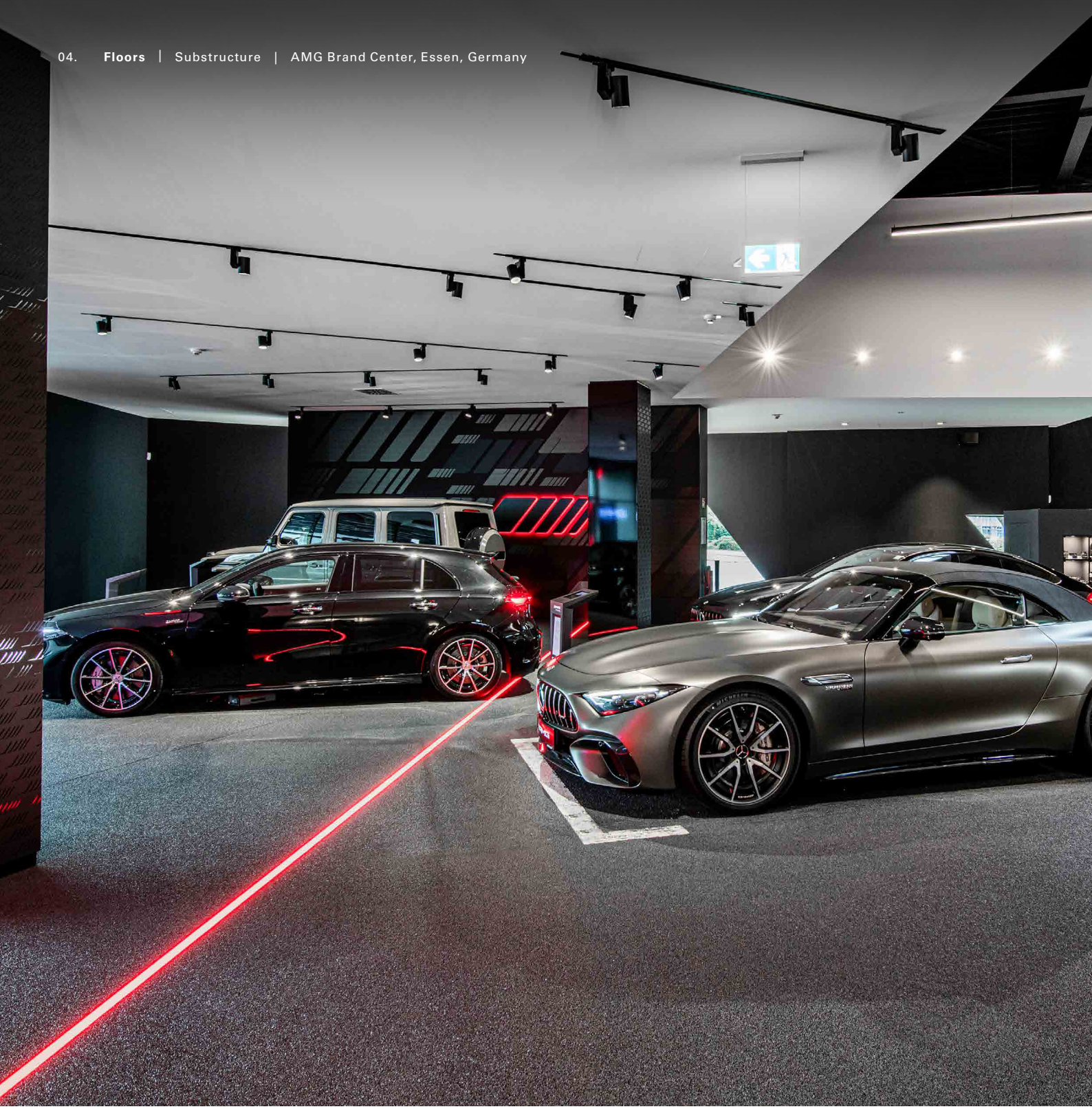
There are many variants, ranging from the lightest stringer, which serves to increase the horizontal rigidity, to the switchboard profile.

Grid Bars

Type	Description
RM (54 mm height) **RL** (35 mm height)	The stringers type RM (medium) and type RL (light) are made of cold-formed galvanised steel sheet. Springs are incorporated into the sides at the ends of the pedestals. They are inserted into the pedestal by pressing vertically from above (optional screw fixing). The type RL or RM stringers are used for horizontal and vertical reinforcement of the system.
RO (7.5 mm height)	The RO type stringer is made of cold-formed galvanised steel sheet with a clip function. Clipping in (optional screw fixing) creates a tight fit on the pedestal head – metallic rattling is therefore not possible. The stringer is used exclusively for horizontal reinforcement of the system.

Switchgear Profiles

Type	Profile Dimension	Schematic Representation
CL	40 x 41 mm	
CS	40 x 41 mm	
CX	40 x 41 mm	
CM	40 x 84 mm	
CH	40 x 126 mm	



AMG Brand Center, Essen, Germany

With one of the largest showrooms in the country, the AMG Brand Centre marks a significant milestone for the city of Essen as well as for the Mercedes-Benz AMG automotive brand and is an unique experience for car enthusiasts and interested parties. The modern design and innovative technology of the showroom reflect the spirit of the brand and invite visitors to explore a wide range of models, technologies and brand values.

In keeping with this, Lindner installed the high-quality heavy-duty FLOOR and more® power hollow floor system. Thanks to its ingenious design, the floor can easily support heavy luxury vehicles without losing stability. Its ease of maintenance is ideal for checking the underlying electronics and making any necessary adjustments. With its elegant surface, the FLOOR and more® power hollow floor system also blends seamlessly into the upscale ambience of the AMG Brand Centre and ensures an all-round impressive brand experience.

Floor Coverings

Elegant Finish for System Floors

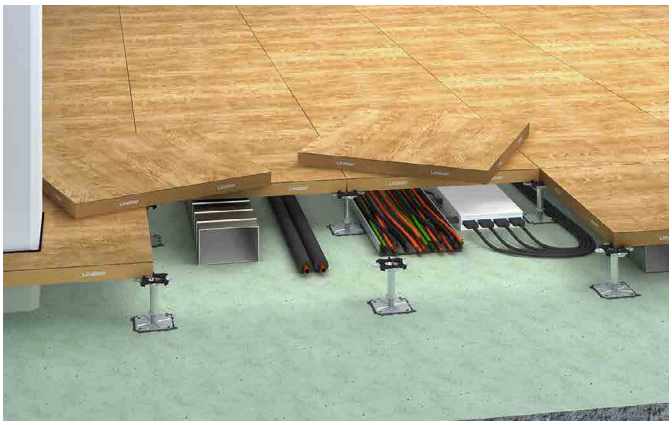
The majority of Lindner Floor Systems are supplied with a floor covering as a finish. The factory application with tested and emission-free adhesive systems ensures durability and top quality. In general, all common floor coverings are possible. You can choose from materials such as rubber, PVC, HPL or carpet. In addition to these standard coverings, we also offer the STONEline, LEATHERline and WOODline series. Thanks to the large selection of wood types, the latter opens up a variety of different design options: All parquet coverings are made from solid wood and are therefore particularly comfortable to walk on. The durability of the flooring is ensured, among other things, by a lacquer or oil surface finish and colour-matching edge trim that extends to the surface.

- resistant and of particularly high quality
- factory-application with emission-free adhesive systems
- different materials can be realised
- panel joints with humidity protection
- FSC™ certification possible for wooden surfaces

Further information on the various surface coverings can be found here:

WOODline

Whether in a conference room or a modern office, parquet covering makes living and working more harmonious. Lindner parquet covering are made from solid wood to the highest quality standards and are therefore particularly durable and comfortable to walk on. The combination of wood type and design allows many possibilities and creative freedom.

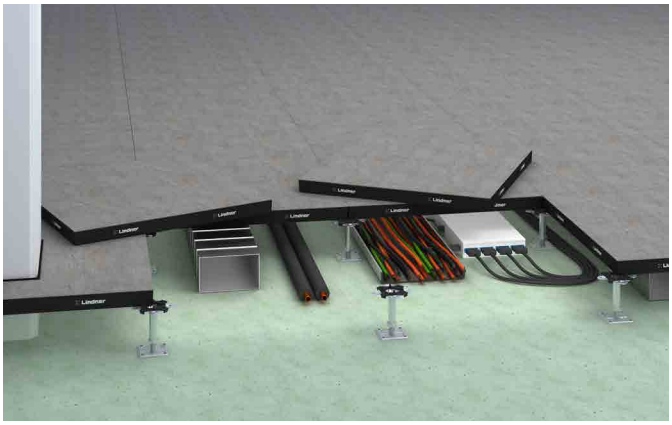


LEATHERline

Depending on the customer's requirements, specific formulas are mechanically shredded from leather offcuts from leather processing companies and combined with vegetable tanning agents, natural rubber, natural fats and water. This means that the material consists of over 90 % genuine leather remnants and bears the LEATHER STANDARD by OEKO-TEX® label. All the necessary tests to ensure product suitability are available.

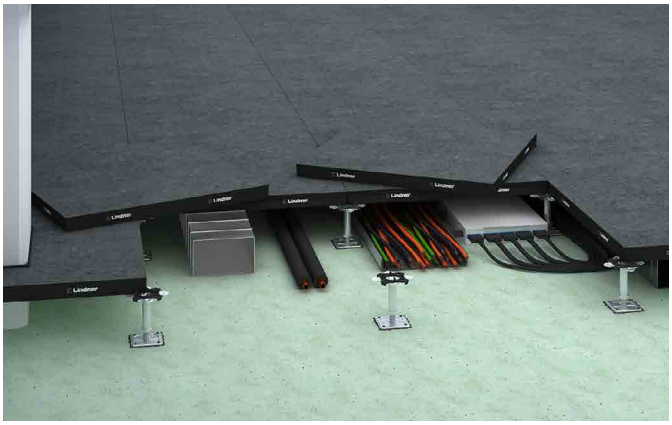
STONEline

STONEline stands for natural stone, artificial stone and ceramic tiles. Depending on the load, different types of coverings are available: hard-wearing granite for heavy, continuous use; the particularly elegant and correspondingly high-quality marble for prestigious rooms or the large number of artificial stones and ceramic coverings with their varied surface patterns for modern design options.



CERAMIN®

CERAMIN® is a ceramic-like, PVC-free composite material with application-optimised properties. With a lower weight per square metre, CERAMIN® is highly resilient and extremely robust. It is therefore ideally suited as a base for floor coverings or wall tiles. Due to its lower material density, it is considerably lighter than ceramic, yet just as stable, waterproof and highly resilient.

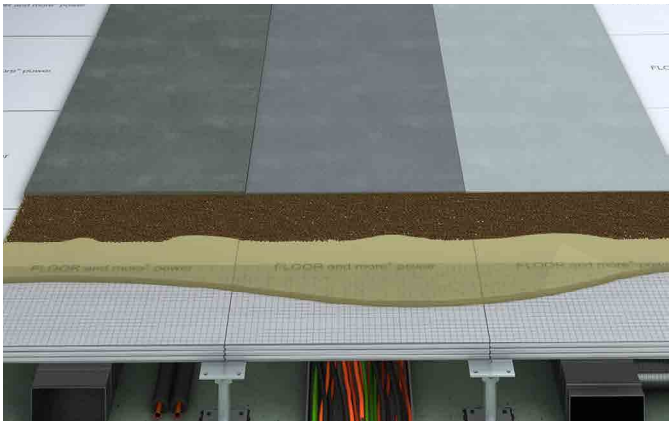


DryTile

DryTile is a highly effective laying technique for ceramic surfaces that enables dust-free tile laying. Simply lay and grout – the surface is ready for use after just 12 to 24 hours. Stone or ceramic tiles of any size are bonded in the factory with a layer of cork to form a dry tile. The cork layer on the back replaces the primer and adhesive, meaning DryTile can be laid up to eight times faster.

panDOMO®

The design coating can be used to create elegant and resilient surfaces that impress with their variety of design options: “Only your imagination counts.”



Boarded Parquet Elements

Boarded parquet elements for full-surface bonding on conventional screed or dry screed systems. The elements are grooved on all sides and are laid with the help of an external tongue. The designs and format of the boarded parquet elements are based on the WOODline raised floors. There is the option of combining our FLOOR and more® Floor System with the boarded parquet, while maintaining the same appearance.

Parquet Planks

The plank in various types, glued as three-layer parquet, is used in upmarket interior design due to its impressive dimensions. The symmetrical structure with wear layer and counter layer of equivalent wood prevents cross warping in the event of temporary unfavourable climatic conditions. With the all-round tongue and groove system, the plank is suitable for full-surface bonding on standardised subfloors.

Accessories

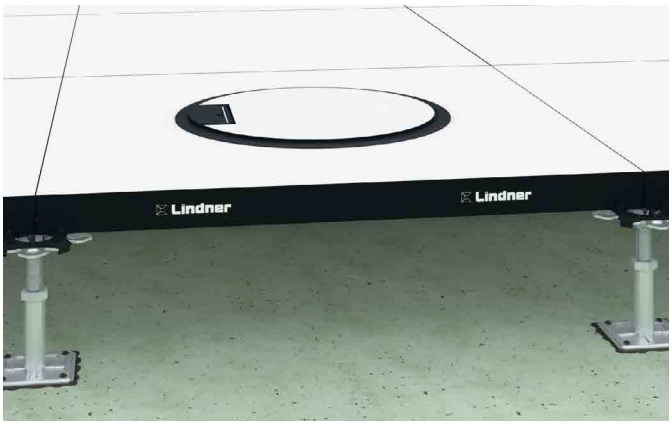
Everything you Need

Every project is different. That's why we offer efficient accessories for our floor systems. Whatever the application, we have what you need.

- electrical outlets
- bridging profiles
- expansion joints
- ventilation outlets
- switchgear frames
- facings
- cavity barriers

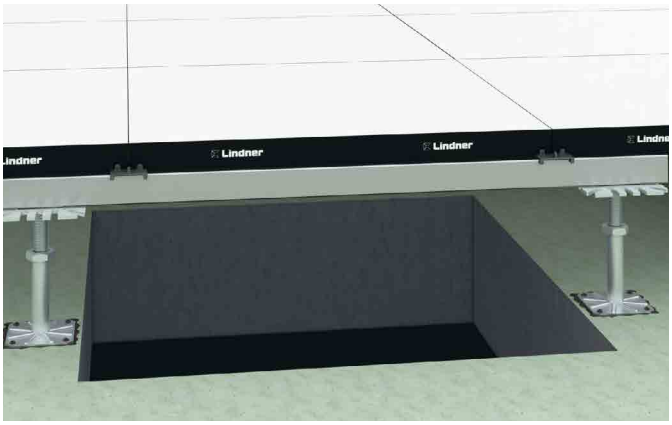
Electrical Outlets

Wires and cables are routed in the cavity under the floor system. Electrical connections can be positioned in a targeted manner by installing electrical outlets.



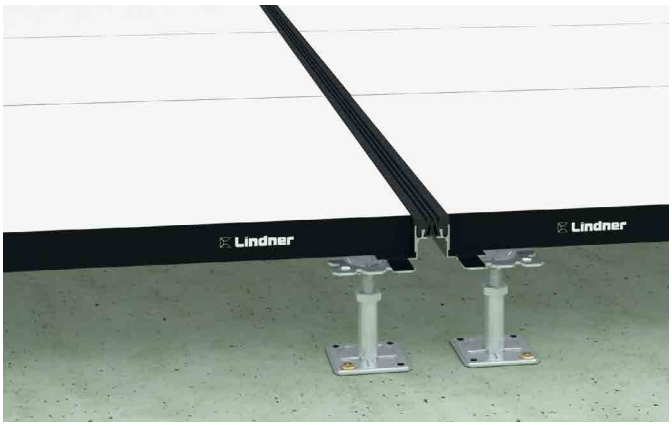
Bridging Profiles

Due to individual structural conditions, bridging for sections without pedestals are necessary in some areas of the system floors. We offer special bridging profiles for this purpose which are easy to install and allow the dynamic and static loads to be transferred.



Expansion Joints

Expansion joint profiles are used in the system floor area to absorb horizontal displacements and vertical settlements constructively and unobtrusively.

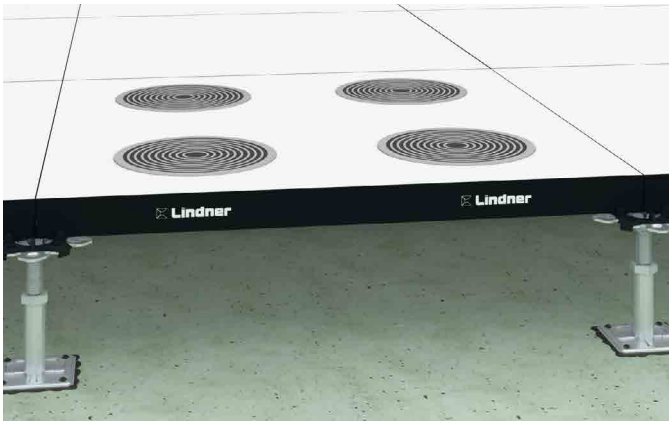


Ventilation Outlets

By using ventilation inserts, it is possible to realise the air conditioning and ventilation of a room without draughts. We offer various systems for this purpose:

Open system:
Here, the air flows directly through the installation cavity, which is designed as a pressurised floor, to the corresponding ventilation inserts and thus into the room to be ventilated.

Closed system:
Here, the air is routed to the ventilation inserts via a pipework system or via ventilation inserts with a fixed connection.



Switchgear Frames

The use of switchgear constructions is recommended in technical rooms: Floor panels are not used under the switchgear cabinets or server racks so that cables can be easily connected to electronic components. The combination of two C-profiles of different heights provides sufficient support and bears horizontal and vertical loads. In addition, cold air flows through the opening in the floor system. This regulates the operating temperature of the components.

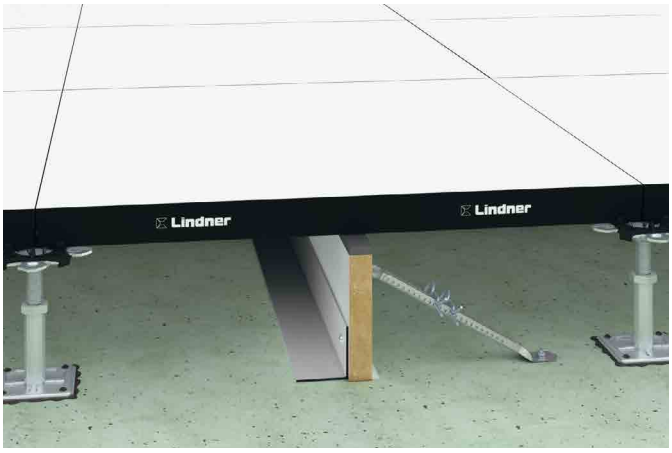
Facings

On stairs, landings, etc., front panelling (panels) form the end of the system. If required – e.g. for open connections – stair nosing profiles cover the top edges of the panels. In addition, an angle fastening on the subfloor and the bracing in the upper area of the cover ensure a stable construction.

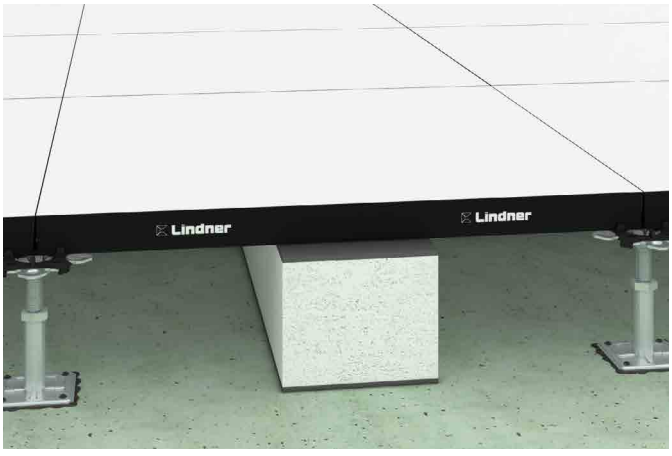
Cavity Barriers

To fulfil different requirements, we offer three types of barriers for system floors:

- ventilation partitions made of coated chipboard material



- fire protection barriers made of aerated concrete (min. 115 mm)
- sound protection barriers made of aerated concrete (min. 100 mm)



Expertise

Your Product is in Good Hands with Us

The requirements for your floor can vary greatly depending on the area of application. To ensure that you are optimally equipped for your project, we offer reliable solutions for a wide range of product requirements in the following areas:

- statics
- fire protection
- sustainability
- services

Statics

Load Capacity

The statics and load capacity of system floors are assessed in accordance with the standards EN 12825 and EN 13213, as well as the national application guidelines. These standards define test procedures to determine the maximum load and displacement classes for system floors. The load capacity is determined on the basis of point loads. The classification of system floors is based on breaking loads and nominal point loads, with various application examples given for different load levels. International standards also provide guidelines for assessing the load capacity of system floors for various applications.

Load Classes

Class [1]	Breaking load [2]	Nominal Load [3]	Element class [4]	Applications and examples of use
1	≥ 4,000 N	2,000 N	1	Offices without public traffic and without heavy equipment
2	≥ 6,000 N	3,000 N	2	Office areas with public traffic
3	≥ 8,000 N	4,000 N	3	Rooms with increased static loads
4	≥ 9,000 N	4,500 N	-	Areas with fixed seating, design offices
6	≥ 10,000 N	5,000 N	5	Exhibition areas, workshops with light operations, storage rooms
6	≥ 12,000 N	6,000 N	6 [5]	as load level 5,000 N, but with higher load requirements, industrial and workshop floors, libraries, vaults, floors subject to high loads, production areas such as clean rooms

1) classification of the load according to EN 12825 and EN 13213

2) to determine the breaking load, the load is applied at the weakest point of the panel (see illustration) using a 25 x 25 millimetre test indentor and increased until the system fails

3) the nominal load or load level results from the breaking load divided by the safety factor n = 2

4) load classification according to the application guideline for system floors

5) higher breaking/nominal loads are necessary in individual cases for system floors with high load requirements, see NORTEC power and FLOOR and more® power systems

Seismic Safety

The earthquake resistance of system floors is an important aspect in the construction of buildings. System floors must be designed in such a way that they fulfil the requirements to earthquake safety. This includes the use of special construction materials and techniques that provide sufficient stability and flexibility to withstand the loads during an earthquake. In addition, the planning and construction of system floors appropriate guidelines and standards such as local building regulations and international standards were taken into account to ensure the safety of the structure. In collaboration with the Institute of Earthquake Engineering and Engineering Seismology in Skopje, extensive tests were carried out in the shaking table test in accordance with AC-156 in order to demonstrate earthquake safety in practical use.

Fire Protection

With the increasing size and complexity of buildings, fire protection is becoming more and more important. The high potential for damage to life, health and material assets in the event of a fire makes the professional support of fire protection experts essential. Lindner has specialists with many years of experience. Preventive fire protection is a top priority and a tradition here.

Defects in structural fire protection are often inconspicuous or hidden. A detailed inspection and assessment of the existing situation is necessary for the upcoming construction task. At Lindner, we take a holistic approach that goes beyond trade interfaces and assesses the building in its entirety, based on many years of sound experience in construction work worldwide.

System floors offer the option of installing building services and installations in the floor cavity. As these systems introduce fire loads into the cavity of the system floor, fire protection requirements are imposed in the case of rooms requiring protection.

In Germany, the following safety targets are defined, which are of course to be regarded worldwide as relevant requirements for improving the safety level of the building, especially with regard to its user:

- preventing of fire and smoke development
- preventing the spread of fire and smoke
- ensuring sufficient rescue and extinguishing work

System floors in escape routes with a cavity of over 200 mm, or in other rooms over 500 mm, must therefore, in addition to building material class A1 “non-combustible”, additionally demonstrate a fire resistance duration in fire tests in accordance with DIN 4102-2. They must be able to withstand temperatures of up to 850 °C for at least 30 minutes to allow people to escape from the building in an emergency.

Load Classes

Building authority requirement	**Designation according to DIN 4102-2**
	F = Fire resistance class Fire resistance duration 30, 60 minutes
Fire-retardant	F 30
Fire-retardant and essentially made of non-combustible materials	F30 - AB
Fire-retardant and made of non-combustible materials	F 30 - A
Highly fire-retardant	F 60
Highly fire-retardant and essentially made of non-combustible building materials	F 60 - AB
Highly fire-retardant and made of non-combustible building materials	F 60 - A
Building authority requirement	**Designation according to DIN EN 13501-2**
	R = Load capacity E = Room closure I = Thermal insulation
fire-retardant	REI 30
highly fire-retardant	REI 60
fire resistant	REI 90

Sustainability

Green building: We take responsibility – and not just with our building products.

Our actions today determine our future - which is why climate-friendly construction and the principle of the circular economy are so important now. Lindner has been working on “sustainable building” since the 1990s and was a **founding member of the DGNB**. Our own green building department was established in 2009. Since then, we have been constantly expanding our expertise in **building certifications, green building management and consulting** for sustainable new and existing buildings.

This is because sound knowledge, detailed information and documentation in combination with digital tools, **material passports** and **product databases** form the basis for sustainable, circular construction in practice.

Tested sustainability: UPDs, EPDs and Cradle to Cradle Certified®

Sustainable and future-proof building products combine functionality with a sense of well-being, ecological necessity with economic added value. As a full-service provider and producer, we have the necessary factors for this in our own hands: we optimally harmonise the individual components as well as the different products for ceilings, floors and walls.

For the individual products, you will receive both **self-declarations in accordance with ISO 14021** and verified **environmental product declarations in accordance with ISO 14025 and EN 15804**. They provide information on the ecological footprint, recyclability, recycled content, emissions and material properties and -composition of our products.

Our **emission-tested system products** fall below the strictest specifications for indoor air quality with regard to aldehydes and solvents (VOC). Test chamber measurements are carried out regularly for all products in accordance with the requirements of the Indoor Air Comfort Gold® quality mark (e.g. **AgBB measurement scheme**). Two different test methods are used (limit value measurement TVOC after three days, limit value measurement TVOC after 28 days).

EPDs and UPDs serve as the **basis and verification for tenders, life cycle assessments and building certifications** in accordance with the standard assessment systems with regard to:

- conservation of resources
- well-being
- quality
- investment security

breeam LEED DGNB Deutsche Gesellschaft für Nachhaltiges Bauen German Sustainable Building Council

Cradle to Cradle Certified® Product standard

Lindner products are manufactured with optimised use of resources for the longest possible service life. In the case of a NORIT raised floor panel, for example, this is 50 years or more. During development, production and use, we follow the Cradle to Cradle® principle and constantly optimise our products according to the following criteria of the Cradle to Cradle Certified® product standard:

- Material Health
- Material Reutilization
- Renewable Energy & Carbon Management
- Water Stewardship
- Social Fairness

Since the first Cradle to Cradle Certified® award in 2017 for the NORTEC raised floor system, further certifications have followed:

Cradle to Cradle Certified® Gold:

NORTEC aurum

- raised floor without edge trim
- more than 50 % renewable energy, carbon-neutral production on request
- in combination with a return agreement, 73 % carbon savings compared to a new product, extra credit points for building certification

LOOP aurum

- raised floor panels refurbished on five sides without edge trim
- in combination with a return agreement, 73 % carbon savings compared to a new product, extra credit points for building certification

Cradle to Cradle Certified® Silber:

- NORTEC raised floors
- FLOOR and more® hollow floors

CERTIFIED cradle to cradle GOLD

CERTIFIED cradle to cradle SILVER

FSC™: Responsible material sourcing

The Forest Stewardship Council™ (FSC™) is a global, non-profit organisation that promotes responsible forest management worldwide. It defines standards based on environmental, social and economic principles. The FSC™ contributes to the preservation of forests and protects the interests of the people and animals who live from the forests. By certifying wood and wood products according to the FSC™ standards, consumers can ensure that these products come from ecologically and socially responsible sources.

Further information: www.fsc.org

Das Zeichen für verantwortungsvolle Waldwirtschaft
FSC™ C119815

FSC™ RECYCLED

The recycling label stands for products that are made exclusively from recycled materials. The forest-based materials contained in the product have been professionally recovered and recycled in the manufacture of the product.

FSC™ MIX

The product contains at least 70% materials from FSC™-certified forests or recycled material, or material from controlled sources is used. Through the use of pre- and post-consumer waste paper for example, almost all NORTEC variants are FSC™-certified.

Circular building

Circular construction is an important lever and solution for achieving climate neutrality. Sustainable building projects and therefore environmentally and user-friendly in the long term means acting in an ecologically, socially and economically responsible manner at every step and in every project phase. The efficient and respectful use of materials and resources has always been very important to Lindner. Because: We don't like waste!

That is why Lindner favours closed cycles. All processes in the company are geared towards:

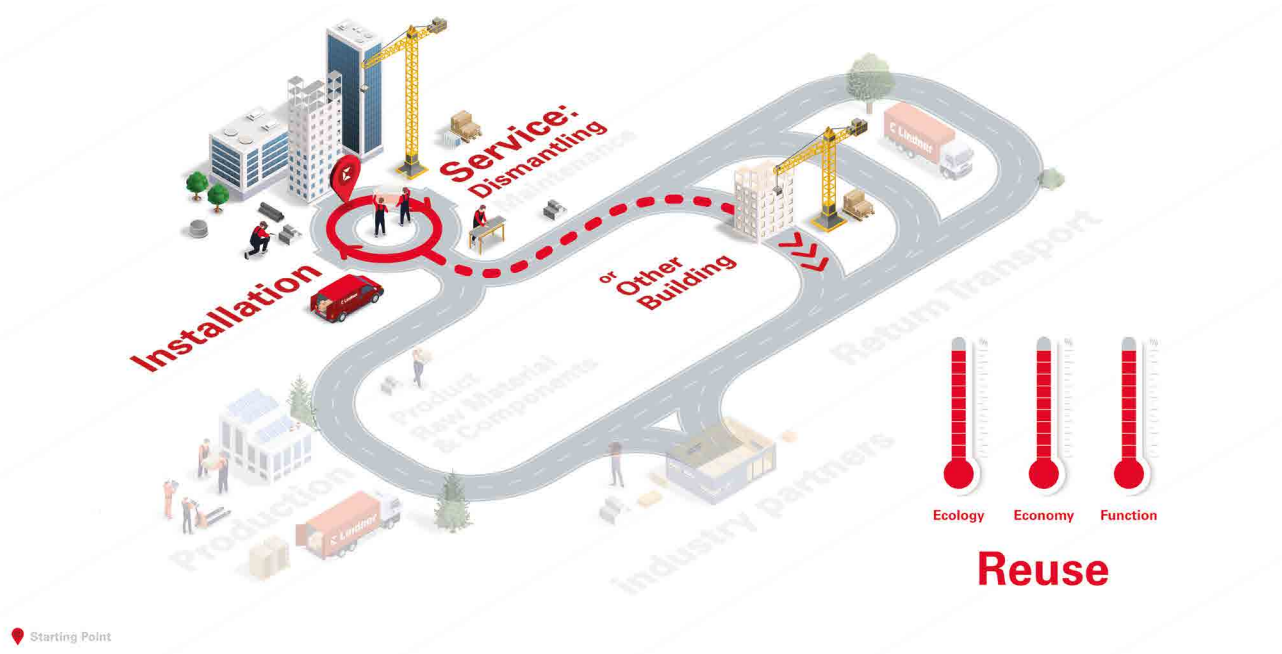
- continuous minimisation of energy and resource consumption
- avoidance of waste and toxic substances
- use of recyclable materials
- use of renewable forms of energy
- closed water circuits
- flexible, modular and demountable product design
- positive influence on people and nature

We offer return and hire models for our products in order to actually close the material cycle and secure resources for future generations.

Services

LinLoop – Circular Business Models

Circular business models enable the actual recycling or return of products and materials to Lindner. Under LinLoop Lindner offers various options that have been adapted for the German, Austrian and Swiss market and country-specific tax law.



Purchase with return agreement

In addition to a classic purchase or work contract, a binding agreement is concluded between the contractual partners for the return or take-back of the products. After 10 to 30 years, the products are returned to Lindner. The customer receives a residual value for this, which usually covers the dismantling costs. Lindner takes care of the dismantling as well as the return to the factory. A maintenance contract can be concluded on request.

Rental of finishing products

For shorter utilisation periods and where more flexibility is required, Lindner offers rental models with a time window of between five and ten years. In this case, Lindner remains the owner of the products and makes reversible fit-out products available for rent to building owners or landlords of office spaces, for example. The rental offer includes installation, dismantling and an annual inspection.

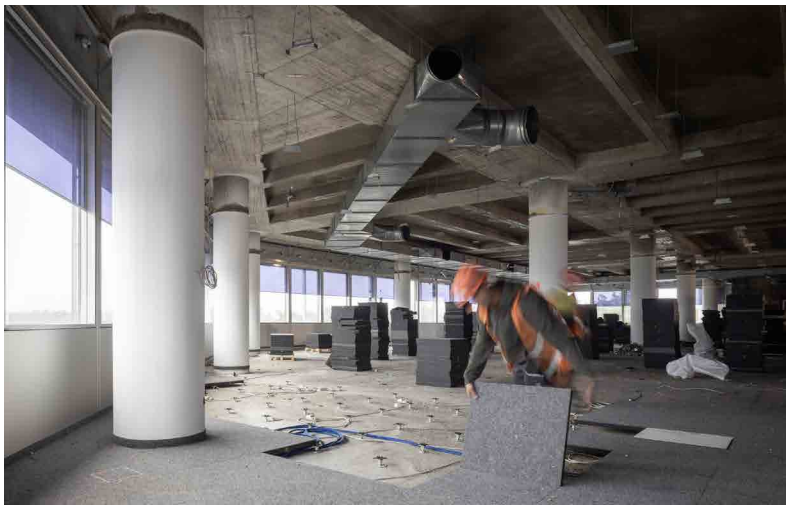
Conversions are possible and the rent will be adjusted accordingly. There is also the possibility of a new rental agreement after the basic rental agreement expires.

The business models are currently offered for selected system products for floors, ceilings and walls or in response to individual enquiries.

Further information on circular construction can be found here:

Advantages of the LinLoop rental and return models:

- active contribution to climate and resource protection and carbon savings
- no dismantling and disposal risk
- no pre-financing for rental models: improves liquidity, reduces the balance sheet
- flexibility in term and product
- Lindner complete packages incl. advice, planning, installation and dismantling



Building in Existing Buildings

The high-quality renovation and revitalisation of existing buildings is a key challenge for the construction industry both now and in the future. Between energy and technology optimisation, sustainability, economic efficiency and monument preservation, it is important to find solutions that are both user-friendly and future-oriented.

Together with you, we record and evaluate different wishes, specifications and framework conditions for the interior and exterior in order to translate these into a balanced concept.

Refurbishments are individual projects: No two are the same, but each one places high demands on the expertise of those involved in all project phases.

The parallel processing of many trades is a particular challenge that requires a great deal of coordination and information skills. Here we rely on the application of lean construction management on the construction site. In this way, we create transparency for all those involved in the construction and ensure that the result meets the quality, schedule and budget requirements.

Lindner is pleased to provide support from the initial assessment of the building to be refurbished. Our experts in fire protection, thermal building physics, statics, building technology, clearance of hazardous material, etc. make a decisive contribution in this phase so that everything runs smoothly later in the construction phase. We have experience of how to deal with historic buildings and the challenges that need to be taken into account when maintaining a listed building.

BIM – Building Better Together Digitally

Creating 3D models, as well as incooperating and consistently applying the entire process-related and technical infrastructure: With Building Information Modelling (BIM), we support the construction of transparent and efficient buildings – with a clear focus on economic potential. Virtual building models based entirely on the open IFC standard are used to combine data from construction planning, construction execution and facility management. The building is first digitally mapped, simulated and qualitatively verified before it is actually built – because the trend towards digitalisation is also becoming increasingly relevant in the construction industry.

A clear goal in mind

BIM maps the entire virtual life cycle of a construction project: from the design and planning of a building to its construction, operation and demolition. We enable you to work innovatively – thanks to virtual plans, process control as well as extensive databases and 3D to 5D building models. The focus of BIM is always on realising potential savings and using an as-built model to transfer the comprehensive data for operation in a meaningful way.

Why build using BIM methods?

- more precise planning, service descriptions and cost estimates
- reducing risks
- increased transparency and acceptance
- early networking
- close co-operation and communication between all parties involved

What you need for this – prerequisites for a value-adding BIM methodology

- clearly defined interfaces and framework conditions
- close co-operation
- team-orientated planning
- definition of roles and responsibilities
- exchange of compatible data between the parties involved

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